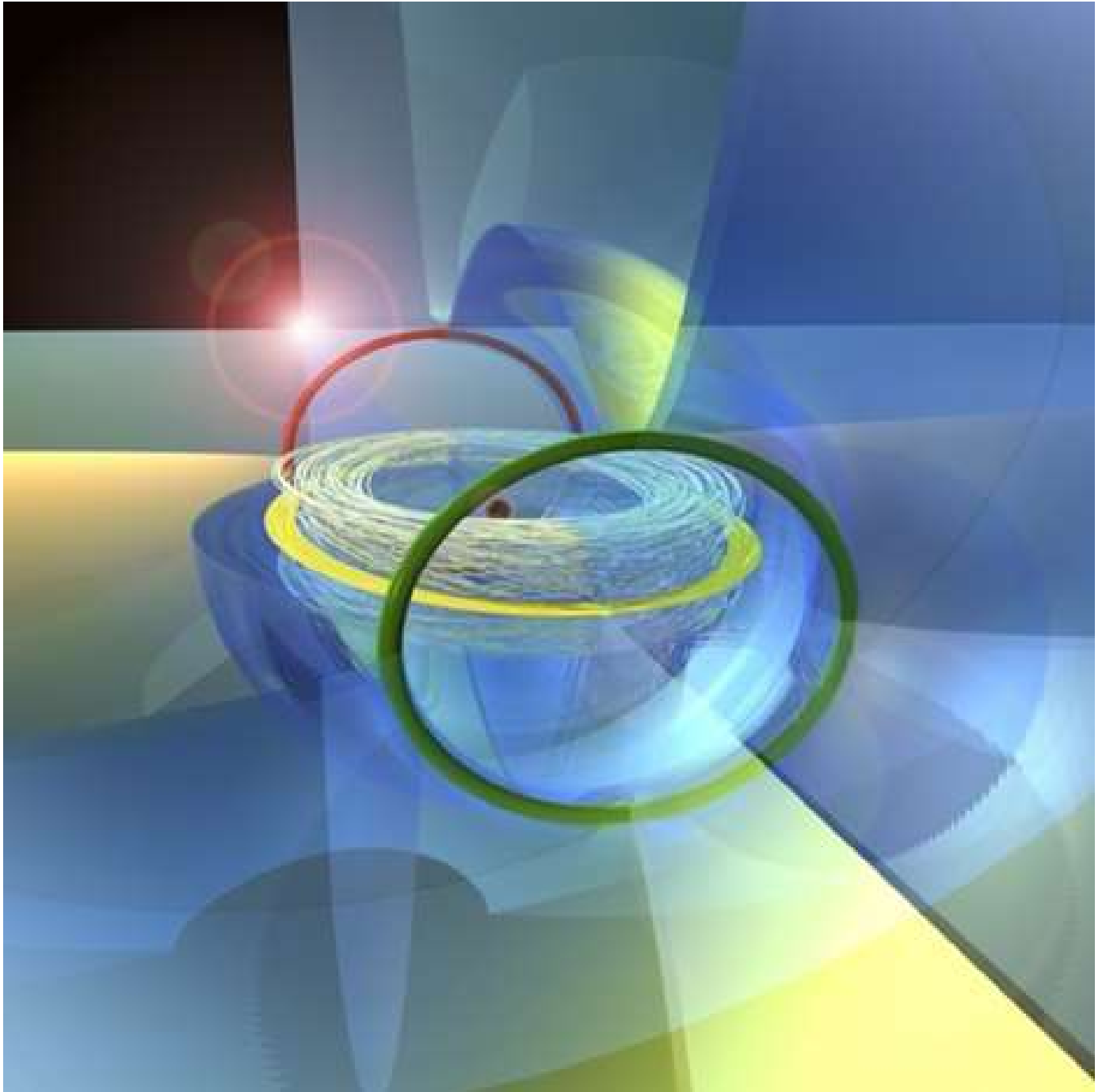




LONDON
MATHEMATICAL
SOCIETY
EST. 1865



London Mathematical Society

Report of the Trustees for the period

1 August 2018 - 31 July 2019

Cover image:
Circularly-Restricted Three-Body Problem ©Dr Andrew D Burbanks

INTRODUCTION

In 2018-19 the Society has continued its work to support its membership and the mathematical community more widely. Membership continues to increase and diversify and the Society now has members from 69 countries around the world.

The Society continues to prioritise early career researchers and to invest resources in this crucial stage of the people pipeline. The Early Career Research Committee provides a strategic overview of the various schemes and activities that the Society offers for undergraduate students through to post-doctoral researchers as well as awarding the various grants and fellowships on offer.

The Society plays a crucial role in the mathematics funding landscape in the UK through its research grant schemes. This year £698,175 was awarded for all LMS grant schemes. The grant schemes provide vital support for mathematicians at a grassroots level, allowing for UK mathematicians to carry out research in pairs, organise conferences and workshops and to invite collaborators to the UK, making available opportunities for exchange of ideas as well as supporting research and career progression.

The Society continues to work collaboratively through the Council for the Mathematical Sciences (CMS) which established the Big Mathematics Initiative in 2019 to take forward the recommendations from the Bond Review entitled, *The Era of Mathematics: An Independent Review of Knowledge Exchange in the Mathematical Sciences*. The Society has been working during the year to gather data on various matters, and has completed an update of the 2012 survey benchmarking gender balance in UK mathematical sciences departments, as part of its role in advocating on behalf of the mathematical sciences. The Society continues to work to ensure that overarching policy support and investment in UK mathematics is maintained, if not improved, to ensure the future health of the discipline, and has provided input into various consultations and exercises this year.

The journals and books that the Society publishes fulfil two vital objectives for the Society: in publishing and disseminating high quality mathematics, but also in providing an income which is then reinvested directly into UK mathematics, and without which many of the Society's grant schemes, meetings, workshops, training and advocacy work and other charitable activities would not be funded. A Sub-Group of the Publications Committee meets twice a year to discuss development of the Society's publishing portfolio within the wider publishing landscape and the impact of new initiatives such as those with regard to open access. Ongoing income from the Society's publications is critical to the Society being able to continue to undertake its charitable activities. With the further advancement of open access the President has been working with the Development Committee over the last year to look at new initiatives to attract alternative funding to the Society.

The Society continues to actively monitor its governance to ensure that the systems underpinning the running of the charity are the most appropriate to help it meet its charitable objectives. The review and updating of the Society's Standing Orders has been undertaken by the President and the General Secretary working with the Standing Orders Review Group. The membership has been consulted about the revisions. These will be formally considered at the AGM in November 2019 where it is hoped that they will be adopted by the membership and then sent to the Privy Council for approval. The Society continues to ensure that it meets all new General Data Protection Regulations (GDPR) as they are released.

This report provides an overview of the full range of activities undertaken by the Society in meeting its charitable objectives during 2018-19. Further information on the Society's work can be found on its website: lms.ac.uk

MISSION

The London Mathematical Society has, since 1865, been the UK learned society for the dissemination and promotion of mathematical knowledge. Our mission is to advance mathematics through our members and the broader scientific community worldwide.

The Membership

The membership of the Society continues to grow - in 2018-19 there were 3,391 members. The membership is the core of the London Mathematical Society. Mathematicians drive the Society, and volunteers' contributions are vital to the Society in defining its priorities, running its activities and achieving its objectives. The Society at present has 26 committees with 220 volunteer committee roles and other individual roles, as well as 33 volunteer roles representing the Society on external committees. A large cross-section of the mathematical community is directly involved in the work of the Society, engaging widely with other organisations across the UK and beyond. The Society's global reach is reflected in its membership, with over 20% of LMS members based outside the UK.

The Society was delighted to elect Professor Edward Witten (Institute for Advanced Study, Princeton) and Professor Don Zagier (University of Bonn) as Honorary Members in 2019.

Communications and Engagement

Communication with members is of key importance, ensuring that the Society keeps abreast of the most interesting developments in mathematics and the mathematicians who are associated with such innovation. The Society acknowledges achievements in mathematics through its prize-giving, elections to Honorary Membership and invitations to give lectures.

Effective communications ensure that the Society can identify the current concerns within the community and can work to help address them. The network of LMS Representatives across UK universities is central to these communications.

As of 2018-19 the Society has 60 LMS Representatives with whom it communicates via monthly emails and an annual LMS Reps Day in London at which the Society

listens to feedback from the Reps. For example, in 2018-19 LMS offered pro-rata membership fees to new members elected to membership during the membership year (1 November – 31 October) following feedback from the LMS Reps at the LMS Reps Day. The LMS actively seeks to recruit more Representatives to ensure that all UK mathematical sciences departments are directly engaged with the Society through a Representative.

In addition to the LMS Representatives there is also a network of Good Practice Scheme (GPS) Representatives who provide contact points between GPS Supporter departments and the Society to ensure full engagement with and communication about the Good Practice Scheme and matters of good practice in gender equality. There are currently 61 GPS Representatives at departments across the UK. The Society is currently engaged in looking at wider equality issues and this work will continue over the coming year.

The regular mid-month LMS e-Update keeps members informed of upcoming events and grant deadlines. The Society hosts a number of 'blogs' on a variety of subjects on its website in order to provide opportunities for dialogue with and between its members and the broader mathematical and scientific community, these are: Members; Publications; Education; Charter, Statutes and By-Laws Consultation; Research Excellence Framework.

In 2018-19, the Society continued a series of exchange articles published in the Newsletter with its reciprocal societies to raise awareness of LMS membership around the world and to highlight to LMS members the possibility of joining these societies as Reciprocity members. The Society was delighted to sign an Agreement with the Irish Mathematical Society to enable members of each Society to enjoy reciprocal membership of the other Society. The Society now has Reciprocal Agreements with 21 Mathematical Societies

around the world.

The LMS has three very active Twitter accounts:

- @LondMathSoc,
- @womeninmaths, and
- @DeMorganHouse

with over 22,000 followers as well as a dedicated LinkedIn Group for UK women in mathematics with 130 members. The Society's YouTube channel has over 5,500 subscribers.

The Society's Newsletter continues to function as a central resource for mathematical and Society news and events. In 2018-19, the new style Newsletter includes mathematical feature articles on a diverse range of topics such as detecting metal land mines, how graph theory can help control cattle diseases, and a bird's eye view of the history of expectations,

efforts and results inspired by Hilbert's Sixth Problem. The November 2018 issue included a 'postcard' from the International Congress of Mathematicians, a diary-style feature detailing each day of the conference, as well as one-page explorations of the work of each of the 2018 Fields Medal winners. The Newsletter Editor-in-Chief, Iain Moffatt, confirmed he would step down at the end of 2019, after a highly successful three years. During his tenure, Iain has overseen a complete revitalisation of the publication, and he is thanked for his dedication to and enthusiasm for the project.

Contributions to the Newsletter are welcomed from members and non-members alike and may include, for example, feature articles and micro-theses. Members are very much encouraged to submit ideas for Newsletter articles and features.

2018-19 highlights

- 3,391 members of the Society.
- 389 new members in 2018-19 including 132 new female members.
- Professor Ed Witten and Professor Don Zagier elected Honorary Members.
- Signed Reciprocity Agreement with the Irish Mathematical Society.
- Offered pro-rata membership fees to new members elected to membership during the membership year.
- Global membership with members from over 65 countries.

2019-20 plans

- Launch a new membership category for Undergraduate students; Associate Undergraduate Membership
- Eleanor Lingham is to replace Iain Moffatt as the new Editor-in-Chief of the LMS Newsletter.

SUPPORTING MATHEMATICS RESEARCH

Objective: to advance mathematical knowledge by enabling mathematicians to undertake research and collaboration, and by supporting them in their efforts.

The Society's grants schemes are at the centre of the Society's work to advance mathematical knowledge and support mathematicians in their research and collaborations. There are 28 grant schemes in operation (for a full list see Annex 5) covering various activities ranging from facilitating research conferences, to small grants supporting education and teacher continuing professional development, to providing funds to help with caring responsibilities and career breaks, and developing international mentoring opportunities. The Society also supports research by maintaining its Library, with various collections available for researchers' use, and by awarding a number of prizes annually to recognise mathematical research excellence.

Grants

The Society continues to award small grants, simpler and more easily accessible than the major large grants available elsewhere, and in doing so plays a crucial role in the UK mathematical funding landscape. The Society's grants can offer mathematicians the opportunity to organise much-needed smaller-scale conferences, work collaboratively through short visits, and enable the development of research partnerships, all of which significantly contribute to career development and impact on UK mathematical research at its roots.

To ensure that the wider mathematical community is aware of the funding available from the Society, there are ongoing efforts to promote grant schemes as widely as possible. This is achieved through the LMS Representatives network and via the Society's Newsletter, e-updates, website and social media accounts; as a result there has been a continuous increase in demand for financial support year on year. The Society typically receives between 230 and 250 applications a year for research grant schemes 1-5 and 8-9. In particular, there has been a marked increase in applications for the financial aid to support

conference grants (Scheme 1), as well as a steady increase in the applications to support collaborative research (Schemes 3 and 4 in particular). It is expected that the volume of applications received by the Society will continue to grow due to the difficulty in accessing external funding for mathematics research, particularly for fundamental research.

Through its research grant schemes the Society has continued to provide support to many mathematicians and their research. In 2018-19 the Society awarded a total of £520,637 through 264 grants, which are managed by the Research Grants Committee and the Early Career Research Committee. The Society supported 70% of all research grants applications received under the various research grant schemes.

International schemes

As well as supporting UK-based mathematics, the Society also supports mathematical activities on an international level. In 2018-19, a total of £8,240 was awarded in four grants under the Society's Scheme supporting postgraduate attendance to conferences in Africa, organised by the African Mathematics Millennium Science Initiative (AMMSI).

In addition the current partnerships under the Mentoring African Research in Mathematics (MARM) programme continued this year. MARM operates in collaboration with the African Mathematics Millennium Science Initiative (AMMSI), using LMS funding combined with funding from the International Mathematical Union Commission for Developing Countries (IMU CDC).

The programme aims to slow the academic 'brain-drain' in Africa, in which talented mathematicians often move abroad due to lack of opportunity at home, thus eroding the mathematics people pipeline within the continent. In 2015-16 a fifth round of the programme was launched and, since then, four new partnerships have been created. Including the current partnerships,

this means that 21 awards have been made under the programme: in Cameroon, Congo, Ethiopia, Ghana, Côte d'Ivoire, Kenya, Malawi, Morocco, Nigeria, Rwanda, South Africa, Tanzania and Uganda. From a relatively low-level investment the outcomes of MARM have been substantial, having an effect on the next generation of African mathematicians, improving and enhancing academic curricula, supervising PhD study and leveraging further funding into African institutions, amongst many other achievements. The programme continues to inspire a high application rate from both African institutions and potential European partners and the Society hopes that funding for the scheme will continue into the future, for the benefit of mathematics across the two continents. A new round of partnerships will be launched in 2019/20.

Prizes

The Society awarded a number of LMS Prizes this year, as well as the IMA-LMS David Crighton Medal. The De Morgan Medal, the highest LMS prize, was awarded to Professor Sir Andrew Wiles for his seminal contributions to number theory and for his resolution of 'Fermat's Last Theorem' in particular, as well as for his numerous activities promoting mathematics in general. The Crighton Medal was awarded to Professor Ken Brown for his seminal contributions to noncommutative algebra and for his remarkable record of service and dedication to the UK mathematics community. The Society extends warmest congratulations to all of its prize winners.

Library

The Society's Library is housed at University College London (UCL). The Library Committee meets annually with representatives from the Science Library at UCL to review the Society's 103 international journal exchange agreements, and to review the services offered by UCL Library to members of the Society. This year, three Library Placement Students were recruited as part of ongoing work to make the Society's archives more accessible online, working particularly on arranging the Philip Hall archive. The Society supported a digitisation project at UCL in

which past issues of the Times Educational Supplement were digitised to make them publicly available. Further work has also taken place on the development and promotion of the Philippa Fawcett Collection. The Society houses the Plücker Model Collection; a collection of 14 boxwood models, which are normally on display at De Morgan House.

Computer Science

The 2019 LMS/BCS-FACS (British Computer Society-Formal Aspects of Computing Science) Evening Seminar, held in collaboration with the FACS Specialist Group, will take place on 21 November 2019. The speaker will be Professor Marta Kwiatkowska (Oxford). Since 2005, the Society has funded the costs of an overseas speaker at the British Colloquium for Theoretical Computer Science (BCTCS). In 2019, the LMS-sponsored Keynote Speaker was Professor Maria Chudnovsky (Princeton University, USA) at the event held at Durham University. In collaboration with the Smith Institute, the LMS Computer Science Committee is continuing its work in commissioning further Knowledge Transfer Papers. The LMS-Knowledge Transfer Network (KTN) Knowledge Transfer Reports are an initiative coordinated jointly by the Industrial Mathematics Knowledge Transfer Network (IM-KTN) and the Society. The reports are produced as an occasional series, each one addressing an area where mathematics and computing have come together to provide significant new capability that is on the cusp of mainstream industrial uptake. They are written by senior researchers in each chosen area, for a mixed audience in business and government. The reports are designed to influence managers and decision-makers by raising awareness of new tools and techniques, in a format that allows them to assess rapidly the potential for impact and exploitation in their own fields, alongside information about potential collaborators and suppliers.

In addition, the Computer Science Committee awards the Scheme 7 grants. This is to facilitate collaborations in research at the interface of mathematics and computer science. In 2018-19 a total of seven grants worth £6,080 were awarded.

2018-19 highlight

- £698,175 awarded in grants to support mathematics (combined total of all grant schemes).
- Launched the online grant application system, with a grants dashboard for users to submit and review grant applications and monitor their applications' progress.
- Supported UCL in the digitisation of the Educational Times (Mathematical Questions).
- De Morgan Medal awarded to Professor Sir Andrew Wiles.
- Crighton Medal awarded to Professor Ken Brown.

2019-20 plans

- Oversee the move of the LMS Mathematical Symposia from the University of Durham to the University of Bath.
- Digitise the back issues of the LMS Newsletter with the aim of placing a complete set of them online.
- Continue with the relaunch the Knowledge Transfer Papers.

REPRESENTING AND PROMOTING MATHEMATICS

Objective: to promote widely mathematical sciences research and its broad benefits to decision makers, policy advisers, funders and users of mathematics.

Through its external and public relations the Society aims to ensure that the centrality of mathematics to so many aspects of society is represented to Government, other national policy-makers and influential organisations and individuals in order to inform debate and improve decision-making. The Society undertakes significant collaborative work advocating for mathematics both individually and through the Council for the Mathematical Sciences (CMS).

Public affairs

The Society has undertaken extensive public affairs work over the past year in promoting mathematics to decision-makers and policy advisers within what has been a challenging political and economic climate.

It has responded to various consultations by the Department for Education and Ofqual, in doing so ensuring the mathematical community's voice is heard with a view to influencing policy decisions.

The LMS Research Policy Committee has continued to seek robust evidence to inform its policy contributions. In 2018-19 the Committee published its 'Survey of Postdoctoral Researchers in the Mathematical Sciences in the UK'. The Committee continues to gather data on staff and student numbers, and on Doctoral Training Partnership (DTP) funding, to continue to further its understanding of the people pipeline and to ensure it has supporting data available when making its case for the mathematical sciences to influencers. It is currently looking to investigate the relationship between undergraduate recruitment and changes in the size (as measured in staff numbers) of individual institutions, with a view to looking for patterns of change, particularly following the removal of numbers caps. It is also looking at ways to make the data gathered over the years more accessible to the mathematics community.

The Society has continued to support and promote the

LMS Mathematical Sciences Directory, (MSDirectory), containing the names of over 6,000 academic UK mathematical scientists in the form of a searchable electronic database. The MSDirectory aims to act as a free, central resource to facilitate networking and collaboration, doing so by enabling academics across all disciplines, Research and Development departments within industry, and those in other employment sectors to easily identify UK mathematical scientists by research area, geographical location, and any other criteria specific to needs. The Society continues to promote the Directory, and all UK mathematical scientists in both academia and industry are encouraged to join.

For the sixth year the mathematical sciences, through the CMS, were represented in the prestigious STEM for Britain poster competition at the House of Commons, which brings together young researchers across all STEM (Science, Engineering, Technology and Mathematics) disciplines with Members of Parliament. Kristian Kiradjiev (University of Oxford) received the Gold award for his research into mathematical modelling of flue-gas purification. Silver was awarded to Marina Jiménez-Muñoz (University of Kent), for her poster on spatially-explicit integrated population models applied to bird populations and the Bronze award went to Francesca Crucinio (University of Warwick) for her research on sequential Monte Carlo for Fredholm equations of the first kind. The Gold and Silver awards (including prizes of £2,000 and £1,250 respectively) were sponsored by the CMI, and the Bronze prize (£750 prize) was sponsored by the Heilbronn Institute of Mathematical Research (HIMR).

Within the mathematics research community the LMS President has represented the Society widely at various events, ensuring national and international recognition for the Society and for UK mathematics as a whole, and ensuring the Society's and UK's input into international discussions. The President has represented the Society at Council for the Mathematical Sciences (CMS) Board meetings and attended Parliamentary and Scientific

Committee events, the launch of the Turing Gateway, the British Mathematical Colloquium, an EPSRC meeting on strategic priorities funding and joint meetings with the Institute of Mathematics and its Applications and the Royal Statistical Society. Internationally, the President represented the Society at the General Assembly of the International Mathematical Union (IMU) and the International Congress of Mathematicians (ICM) in Brazil in August 2018. Vice President Cathy Hobbs represented the Society at the 2019 European Mathematical Society (EMS) Presidents' meeting in Berlin and past President Terry Lyons represented LMS at the International Congress on Industrial and Applied Mathematics (ICIAM) 2019 Presidents' meeting in Valencia.

Council for the Mathematical Sciences

The Society is a founding member of the Council for the Mathematical Sciences (CMS) which aims, through its member bodies, to draw together the mathematical community to speak with one voice on national issues of mutual concern. The CMS provides a forum for the consideration of matters of joint interest; it responds and makes representations to Government and others on relevant issues.

The CMS represents the mathematical sciences to government, in particular to the Department for Business, Energy and Industrial Strategy (BEIS). It meets regularly with the Engineering and Physical Sciences Research Council (EPSRC) and aims to have similar interaction with the newly formed UK Research and Innovation (UKRI). The CMS is also a member of the Parliamentary Collaboration Steering Group for STEM learned societies, through which it has been represented on a high level working group on the impact of Brexit on the science community.

The CMS has continued to work with the Royal Society on the establishment of the various working groups of the new Royal Society Advisory Committee on Mathematics Education (ACME) through its new Chair, Professor Frank Kelly. The four partner organisations of the Royal Society (RS), the Institute of Mathematics and its Applications (IMA), London Mathematical Society and the Royal Statistical Society (RSS), with wider support from the mathematics teacher

community, are working together to create a set of four 'contact groups', based within the Royal Society governance structure and reporting in to the Royal Society Advisory Committee on Mathematics Education. The purpose of these contact groups is to review the current implementation of the mathematics curriculum up to the age of 18 and, in time, prepare for the next round of curriculum reform, providing a unified voice for the mathematics education community and delivering more than the sum of its parts.

The Society, as part of CMS, also took part in Voice of the Future, in March 2019, and Parliamentary Links Day in June 2019. The theme for the 2019 Links Day was Science and the New Frontiers. The event was opened for the eleventh year by the speaker of the House of Commons, Rt Hon John Bercow MP, with keynote addresses from Chi Onwurah MP (Shadow Minister for Industrial Strategy), Rt Hon Sir Norman Lamb MP (Chair, House of Commons Science and Technology Select Committee) and Chris Skidmore MP (Minister of State for Universities, Science, Research and Innovation). This was followed by luncheon in the Speaker's House where CMS representatives and guests had the opportunity to meet with Lords and MPs.

Professor Sir Ian Diamond took up the role of CMS Chair in September 2018. This is comprised of a higher level Strategic Committee of influential individuals with the experience and capability to drive forward the review with Government, the National Academies and UKRI, chaired by Dr Claire Craig, and an Implementation Group, chaired by Sir Bernard Silverman, whose members have direct experience of the mathematical sciences and Knowledge Exchange, which is working to advise the Strategic Committee on appropriate actions. Members of the former group include the President Caroline Series and of the latter former LMS President Terry Lyons. It is anticipated that these committees will report back to the CMS in early 2020.

Following the strong support from the CMS for the Bond Review into Knowledge Exchange in the Mathematical Sciences published earlier in 2018 (which can be found at <https://epsrc.ukri.org/newsevents/pubs/era-of-maths/>), the CMS agreed that to take forward the recommendations, a two committee structure should

be established. This should be comprised of a higher level Strategic Committee of influential individuals with the experience and capability to drive forward the review with Government, the National Academies and UKRI, and an Implementation Group made up of those with direct experience of mathematical sciences and Knowledge Exchange, which would work together with the Strategic Committee to define the functions of the Academy. It is anticipated that these committees will report back to the CMS at the end of 2019.

The work of the CMS continues to ensure that the importance of the mathematical sciences is increasingly recognised at Government level, and is fully embedded within the mathematical sciences community.

Collaborative working

The Society works actively and collaboratively through its membership of and funding for a number of mathematics and science organisations to ensure the interests of mathematics are represented in national policy and public debates and to ensure the Society is kept informed of external policy issues. These include the UK Parliamentary and Scientific Committee, British Science Association, Joint Mathematical Council, Campaign for Science and Engineering (CaSE), and the Foundation for Science and Technology. The Society works in association with the UK Heads of Departments of Mathematical Sciences (HoDoMS). The Society is also a member of the Parliamentary Affairs Committee (run by the Royal Society of Biology, on behalf of other STEM learned bodies), and maintains representation within a number of other organisations, including the Programme and Scientific Committees of the International Centre for Mathematical Sciences (ICMS) and Isaac Newton Institute (INI), the Athena Forum (run by the Royal Society) and the STEM Disability Advisory Committee.

The Society is the UK's adhering body for the International Mathematical Union, of which it is a member in the highest category. As such, it sends

a delegation to the General Assembly. It is also a member society of the European Mathematical Society and as such sends a delegation to its biennial Council meetings. It is an associate member of ICIAM. Payment of membership fees to both the EMS and EWM (European Women in Mathematics) is facilitated by the LMS. International relations are dealt with by the Society's International Affairs Committee.

The Society provides funding for the INI and the ICMS as major organisations supporting mathematical research in the UK, as well as for the Royal Society ACME Contact Groups.

The Society helped to facilitate the submission of a successful bid for a UK National Presentation at the 2020 ICME (International Congress on Mathematical Education) Congress in Shanghai.

The Society and the IMA have continued their collaborations throughout the year, including through the award of the Crighton Medal. A joint meeting was held celebrating the work of Emmy Noether.

Development Activities

In 2018-19, The Society continued to prioritise its Development activities, to help ensure that the financial foundation of the organisation is as secure as possible for future generations, as well as making sure that the importance of the mathematical sciences is understood as widely as possible in industry and beyond.

In particular, the Society's Development Committee reviewed and refreshed the Society's web pages on Donations to enable donors to donate online and to give them more information on the Society's activities in the support of mathematics. A number of potential projects that would have a significant impact on the support for mathematics, e.g. a Research Retreat to host collaborators and for which the Society could fund-raise, have been identified.

2018-19 highlights

- Responses issued to Government and national agencies' consultations.
- Supported the ongoing development of the working groups of the new Royal Society Advisory Committee on Mathematics Education (ACME).
- Supported the ongoing implementation of the recommendations from the Bond Review.
- Refreshed the Donations webpages to enable donors to donate online.

2019-20 plans

- Launch a fundraising campaign to benefit key projects that support mathematics.
- Work in collaboration with the CMS to support The Big Mathematics Initiative and the two committees to take forward the Bond Review recommendations.
- Continue to gather, analyse and report on evidence with respect to UK mathematics.
- Continue to bring to the attention of decision-makers and policy advisers national data on mathematics and the UK mathematics landscape.
- Continue to represent mathematics research and education to Westminster, Whitehall and other national funding bodies and ensure that mathematics is explicitly considered during discussions regarding STEM subject areas.
- Further promote the MSDirectory UK.

DISSEMINATING MATHEMATICS

Objective: to disseminate mathematical knowledge and make it available worldwide.

Through its publications and meetings the Society aims to disseminate high-quality mathematical research and thinking worldwide. The Society currently publishes 12 peer-reviewed journals, seven of which are in collaboration with other learned societies and institutions, as well as two book series and individual book titles. The Society also hosts regular meetings and lecture series involving some of the most renowned UK and international mathematicians.

The Society's publications serve a dual purpose, in not only disseminating mathematical research but in providing the Society with an income which it utilises entirely in furtherance of its other charitable activities. The broad and developing portfolio of high-quality journals and books serve our authors through transparent, timely and professionally managed editorial and production processes, and serve our readers by providing content of wide interest and high quality, whilst maintaining sustainable and ethical pricing, including the offer of free online access to LMS members and institutions in developing countries.

Publications

The *Proceedings* of the London Mathematical Society was relaunched in March 2019 with a new editorial board, aiming to attract mathematical articles of the highest quality and significance and establish it as the Society's flagship journal [on a par with the top mathematics journals]. Longer papers that would previously have been submitted to the *Proceedings* are now welcomed by the *Journal*.

The charitable purposes of the Society were widely publicised; a footnote was introduced on the last page of each published research article, summarising the range of activities supported by the publications' surplus income.

A contract amendment was signed with John Wiley & Sons Ltd for taking on the production, sales and

distribution of *Mathematika* on behalf of the Society for five years from January 2020. *Mathematika* was previously published in collaboration with Cambridge University Press.

The Society responded to the 'Guidance on the Implementation of Plan S (for full and immediate Open Access)' and, as part of the UKRI Open Access Review, provided evidence on the value of the Society to the research community. The Society continues to engage with wider developments that may affect its publishing programme.

The Society's fully Open Access journal, the *Transactions*, was included in the Emerging Source Citation Index (ESCI), the Directory of Open Access Journals (DOAJ) and the Scopus abstract and citation database. The journal's scope has been extended to include specialised articles within the general subject areas published by the Society.

The Society signed the San Francisco Declaration on Research Assessment (DORA), which discourages the use of journal metrics to evaluate the professional qualification of individuals.

Society Lectures and Meetings

Meetings

Society Meetings enable both members of the mathematical community and the wider public to meet, hear about and discuss current mathematical thinking and developments. In 2018-19 Society Meetings were held in Edinburgh, Exeter, Lancaster, Newcastle, Rio de Janeiro as well as London. An international Society Meeting was held at the International Congress of Mathematicians (ICM) in Rio de Janeiro at which Professor Marta Sanz Solé (Barcelona) gave the LMS Lecture.

The Hirst Prize Lecture was given by Professor Jeremy

Gray (OU and Warwick) at the Society Meeting in March 2019. The Mary Cartwright Lecture was given by Professor Beatrice Pelloni (Heriot-Watt) at the Society Meeting held in April 2019. A Society Meeting was also held at the British Mathematical Colloquium at the University of Lancaster in April 2019, which included a lecture by Professor Kathryn Hess (EPFL, Lausanne, Switzerland).

During 2018-19, the Society held two joint meetings, the first in London with the Institute of Mathematics and its Applications to celebrate the 100th Anniversary of Emmy Noether's paper on Conservation Laws, and the second with the Fisher Trust, the Galton Institute, the Genetics Society and the Royal Statistical Society to celebrate the centennial of R.A. Fisher's famous 1918 Paper on the theory of quantitative trait inheritance: *100 years of quantitative genetics theory and its applications: celebrating the centenary of Fisher 1918*.

Lecture series

The Society's funding for visiting international lectures helps enable UK-based mathematicians to engage in dialogue with current mathematical thinking from

across the world.

International lecturers included the 2019 LMS Invited Lecturer, Professor Søren Asmussen (Aarhus University), who gave the Invited Lectures Series at the International Centre for Mathematical Sciences (ICMS) on Advanced topics in life insurance mathematics. The 2019 LMS-NZMS (New Zealand Mathematical Society) Aitken Lecturer, Professor Bakh Khossainov (University of Auckland), visited the UK in June and July 2019 to give lectures at Durham, Liverpool, the London Logic Colloquium, Manchester, Oxford, St. Andrews and Swansea as the part of the LMS-NZMS Aitken Lecture Tour 2019. Two Graduate Student Meetings were held prior to both the Annual General Meeting in November 2018 and the General Meeting in June 2019. Over 50 students attended these meetings and 13 gave presentations on their own research.

All of the Society's meetings and lectures are open to members and non-members alike and are free to attend. In 2018-19 over 525 people have attended the meetings and been able to hear about important current developments in mathematical sciences research.

2018-19 highlights

- Relaunch of *Proceedings* as the Society's flagship journal with distinguished editorial board.
- Advancements in developing and promoting journal identities.
- *Mathematika* joining in LMS partnership with Wiley.
- Engagement with developments in Open Access publishing.
- Over 500 people attended 11 Society Meetings.
- Hosted a Society Meeting and LMS reception at the ICM 2018 in Rio de Janeiro.
- Hosted Joint Meetings with the IMA, and with the Fisher Trust, the Genetics Society, the Galton Institute and the Royal Statistical Society.

2019-20 plans

- Continue to develop strategies in accordance with the Publications Aims and Objectives which will enable the LMS to continue publish high-quality research and exposition on a sustainable basis.
- Continue to review Editorial workflows, and improve services for authors and readers.
- Maintain a competitive position within mathematics publishing.
- Host a joint Society Meeting at the 8ECM in Portorož and Piran, Slovenia.
- Fund and host the 2020 LMS Hardy Lecture Tour.

SUSTAINING THE MATHEMATICAL COMMUNITY

Objective: to promote equality of opportunity and a culture of fairness across all career stages, ensuring the long-term sustainability of the mathematical research community.

The Society has recognised increasing concern among the community regarding career progression across academia generally and within the mathematical sciences specifically. Decreasing statutory funding leading to fewer opportunities for graduates and postgraduates has caused concern about the sustainability of the mathematical sciences people pipeline. Ensuring that talented mathematicians are enabled to progress securely through the various career stages is critical – not only to academia but to wider industry and the economy more generally. This objective focuses the Society's work in this area, particularly with respect to the transitions between the early career stages (undergraduate to postgraduate and postgraduate to postdoctoral) and to women in mathematics and the wider diversity agenda.

Early career progression

The Society operates a number of schemes which provide support for the early career progress of mathematicians at undergraduate, postgraduate and postdoctoral level as well as for women in mathematics.

LMS Research Schools

The Research Schools Scheme provides training for research students in all contemporary areas of mathematics. Students and post-docs can meet a number of leading experts in the topic as well as other young researchers working in related areas. The LMS Research Schools support participation of research students from both the UK and abroad. The lecturers are expected to be international leaders in their field. The LMS Research Schools are often partially funded by the Heilbronn Institute for Mathematical Research.

In 2018-19, three LMS Research Schools took place at ICMS, Edinburgh (PDEs in Mathematical Biology – Modelling and Analysis), the University of Bath (Random Structures: from the Discrete to the Continuous) and the University of Reading (Mathematics of Climate)

attracting over 137 participants.

Undergraduate Research Bursaries

The sixth round of the Undergraduate Research Bursaries scheme received 81 applications from 32 institutions, a decrease from the 119 applications received in the previous round. The Society was pleased that once again the vast majority of applications were supported by matched funding, with 26 out of 32 institutions offering to provide 50% of funding for successful applications, allowing the Society to nearly double the number of awards made under the scheme than in previous years. There were 40 awards made in 2019, 37 of which were match-funded. The scheme has now provided support to almost 240 students over the years, and feedback from grant-holders has indicated how valuable this scheme has been in showing how rewarding research in mathematics can be.

Undergraduate Summer Schools

The Undergraduate Summer Schools aim to introduce exceptional non-final year undergraduates to modern mathematics and, in particular, to encourage them to think seriously about a future academic career. The 2019 School, held at the University of Leeds, attracted applications from 26 universities across the UK. 43 students attended the School which included a combination of short lecture courses given by mathematical experts alongside problem solving sessions and colloquium style talks. A prize of a complimentary one-year LMS membership was awarded to a student who produced the best set of solutions to the mathematical challenge.

Prospects in Mathematics Meeting

In addition to these specific schemes, other ongoing activities continue to support early career researchers. These include providing funding for the LMS Prospects in Mathematics event, which was held at the University

of Warwick in September 2018 and was attended by 87 undergraduates. The meeting is primarily aimed at final year undergraduates and Masters' Students interested in pursuing a PhD in mathematics. Students are able to learn about PhD research opportunities in different areas of mathematics before choosing their final year modules.

LMS Grants for Meetings of Undergraduate Mathematical Societies

The Society funds a grant scheme to support meetings of Undergraduate Mathematical Societies at UK universities by providing funding for speakers and receptions after the meetings.

Cecil King Travel Scholarship

The London Mathematical Society annually awards a £5,000 Cecil King Travel Scholarship in Mathematics, to a young mathematician of outstanding promise to undertake a period of study or research abroad, typically for a period of three months, in any area of mathematics. The Cecil King Travel Scholarship was established in 2001 by the Cecil King Memorial Fund. In 2018-19, the Cecil King Travel Scholarship was awarded to Rachael Boyd (NTNU) who will visit Brandeis University, Boston in 2020.

Celebrating New Appointments Grants

The Celebrating New Appointments grant scheme is designed to provide partial support for inaugural meetings organised to celebrate the new appointment of a lecturer at a UK institution. The one-day meeting aims to recognise the new appointment as well as to strengthen the research network they naturally sit in, whilst additionally giving the new appointment the opportunity to network and forge links in the local mathematical community. In the 2018-19 financial year, the Society awarded grants to support 21 inaugural meetings at UK institutions.

Postgraduate Research Conference Grants

The Postgraduate Research Conference grant scheme aims to give postgraduate students the experience of applying for, organising and hosting a conference for other postgraduate mathematicians. In 2018-19, the

Society awarded grants to support 14 postgraduate conferences.

LMS Early Career Fellowships

The Society launched the Early Career Fellowships in 2018-19 to support early career mathematicians in the transition between PhD and a postdoctoral position, to undertake a period of research of between 3 and 6 months at one or more institutions but not normally at the institution where the Fellow received their PhD. A total of 11 Early Career Fellowships were awarded in 2018-19 from the 47 applications received.

LMS Travel Grants for Early Career Researchers

The Society launched a new grant scheme to support Early Career Researchers (defined as research students or having completed their PhD within the last five years, excluding career breaks) attending conferences or undertaking research visits both within and outside the UK. In the 2018-19 financial year, the Society awarded grants to support 29 early career researchers to attend conferences or undertake research visits.

YRM

The Society funds the Young Researchers in Mathematics (YRM) conferences, which are national conferences specifically for postgraduate students, planned, organised and run by the students themselves. Although a YRM conference was not held in 2019, one is due to be held in 2020.

Women in Mathematics

The Society continues its commitment to improving the proportion of women in mathematics and to helping ensure that equal opportunities are embedded within working practices for the benefit of everyone working and studying within UK university departments. The Women in Mathematics Committee has representatives from all 5 constituent mathematical bodies of the CMS as well as from the Standing Committee of European Women in Mathematics, ensuring it speaks for the entire UK mathematical community. The Chair of the Women in Mathematics Committee represents the Society on the Athena Forum.

In 2018 the Committee launched an online resource for young people, *Success Stories in Mathematics*, to provide examples of how mathematics is used in a wide range of careers and to demonstrate the variety of career options available to anyone who holds a mathematics degree. The website currently features nearly 60 profiles of mathematicians from all walks of life with diverse and interesting stories. The project was developed further during 2018–2019, with more stories due to be added to the LMS website later in 2019.

The Society operates the LMS Good Practice Scheme, which aims to help mathematics departments to take practical actions to improve the participation of women and to share examples of good practice with other departments. The Scheme offers support in applying for an Athena SWAN award for those departments seeking recognition for their work in this area. The Society runs Good Practice Scheme workshops that aim to cover a wide variety of Good Practice issues. A workshop was held in London in October 2018, which focused on the Society's updated Benchmarking Survey on women in mathematics and good practice in UK university departments. A second workshop was held in Edinburgh in April 2019 in collaboration with the International Centre for Mathematical Sciences (ICMS) and focused on Good Practice for early career researchers. There have been over 300 attendees at the GPS workshops held to date, representing over 50 institutions. The LMS Good Practice Scheme and its events are intended to help mathematical sciences departments implement best practice policies, contributing towards the achievement of Athena SWAN status, and ultimately working towards ensuring that negative, unhelpful or discriminatory practices preventing fair career progression are eliminated. 52

mathematical sciences departments now hold Athena SWAN awards (10 silver and 42 bronze), and 40 of these are registered LMS Good Practice Scheme Supporters.

The Good Practice Scheme Steering Group has also been working on an update to the 2012 Benchmarking Survey of women in UK mathematics departments. The updated report was completed and approved by Council at its June 2019 meeting and the report will be published later in 2019.

Two 'Women in Mathematics' Days were held in 2019, at QMUL in March and at the University of Kent in May, attracting over 80 mathematicians. Three 'Girls in Mathematics' events were hosted by Jersey College for Girls, University of Liverpool and Bishop Grosseteste University. Both the Women in Mathematics and Girls in Mathematics schemes received a large number of applications for the available funding, indicating the level of interest within the community for providing activities that encourage and support girls and women in mathematics. In 2019 a new initiative, 'Diversity in Mathematics' Days, was set up to support aspects of diversity beyond gender. One such day will be supported each year. Each annual event is expected to focus on some aspect of diversity in the Mathematical Sciences, whether in industry or academia, and also offer opportunities for mathematicians from that diversity group to receive mentoring, and networking opportunities. The Committee continues to operate its Caring Supplementary Grants and Grace Chisholm Young Fellowship schemes.

In 2019 the Society also committed financial support to the 2020 LGBT STEMinar, which will be held at the University of Birmingham.

2018-19 highlights

- LMS Early Career Research Fellowships launched.
- Undergraduate Summer Schools attracted applications from 26 universities across the UK.
- Undergraduate Research Bursaries attracted 81 applications from 32 institutions.

2019-20 plans

- Publish an updated benchmarking survey on gender diversity in UK mathematical sciences departments.
- Seek sponsorship to continue to run those activities which provide support to early career researchers.
- Develop downloadable poster versions of the Success Stories in Mathematics.
- Continue to gather and disseminate data related to the mathematical sciences people pipeline to evidence gender diversity within the discipline.
- Explore how the Society might approach wider matters of Equality, Diversity and Inclusion.
- Offer grants to support the LMS Research Schools.

ENGAGING WITH EDUCATION AND THE PUBLIC

Objective: to support mathematical education in schools, colleges and universities, and to encourage the public and young people to appreciate and engage with mathematics.

The Society is keen to ensure that as far as possible the wider public and young people have the opportunity to engage with and appreciate mathematics and recognise its contributions to society. It operates a number of initiatives which aim to achieve this.

Education

The Education Committee works on a number of different activities and schemes, including grants for education, public lectures and responses to consultations.

This year the Society's Mathematics Teacher Continuing Professional Development (CPD) grants scheme made 30 awards, supporting the professional development of mathematics teachers and the improvement of mathematics teaching. These included two awards to organisers of mathematics conferences under the new 'Multiple Grants for Teacher CPD' scheme, under which organisers of regular mathematics education conferences may apply for a grant to contribute to the travel/subsistence expenses of attendees of the event in question. The LMS continues to contribute to the Top-Top Set Maths Project, a pilot scheme which aims to maximise the potential of numerate and ambitious students by encouraging non-selective schools to create a 'top-top set' in every year group, which caters for the needs of the strongest and most motivated mathematics students.

The Committee submitted a response to the Department for Education consultations on an 'Independent Review of TEF' and updated its statement on the teaching and assessment of mathematics degrees, a support document which aims to explain to non-mathematical colleagues some of the distinctive features of the assessment and teaching of mathematics, both as a subject in its own right and in a service teaching context.

The Committee continues to work closely with other groups and societies in the area of mathematics

education, including the Advisory Committee on Mathematics Education (ACME), as well as the Joint Mathematical Council of the UK (JMC), Heads of Departments of Mathematical Sciences (HoDoMS) and the Higher Education Academy (HEA). In May 2019, a LMS Education Day was held at De Morgan House and attended by a number of representatives of these groups as well as representatives from a number of UK universities. The event included an update on subject-level TEF and a talk on teaching ethics in the mathematics curriculum in the morning, and the afternoon series included presentations and small group discussions on sharing practice.

The Education Committee continues to run the Holgate Session Leader scheme. The Scheme provides session leaders who are willing to give a talk or run a workshop on a mathematical subject to groups of students or teachers. The sessions are specifically mathematical in content (rather than, say, career talks) and are intended to enrich and enhance mathematical education, looking both within and beyond the curriculum. Three new Session Leaders, Tom Crawford, Jonny Griffiths and Elinor Jones, were recruited in 2019.

The Education Committee has recently launched a sub-committee, 'Teaching Mathematics as a Career', which aims to formulate and implement the Society's response to the national shortage of suitably qualified mathematics teachers in the UK.

Popularisation

This year's Popular Lectures were presented by Professor Peter Higgins (University of Essex) and Professor Alain Goriely (University of Oxford). Over 300 people attended the Lectures in London and Birmingham.

The Society once again hosted a joint lecture with Gresham College. The 2019 Gresham Lecture,

Toothpaste, Custard and Chocolate – Mathematics Gets Messy, was presented by Professor Helen Wilson (University College London).

The Society continued to produce Maths Inside leaflets in conjunction with the Royal Society and exhibitors at the Royal Society's Summer Science Exhibition in July 2019.

For the first time the LMS worked in collaboration with

the Norwegian Academy of Science and Letters to transmit the announcement of the Abel Prize live to an audience at the Science Gallery London. After the announcement, a panel consisting of LMS President Professor Caroline Series, and Professors Nigel Hitchin, Mark Haskins and Peter Topping discussed the life and scientific work of the winner, Karen Uhlenbeck. The event attracted an audience of around 50.

2018-19 highlights

- LMS Education Day.
- Popular Lectures attended by over 300 people.

2019-20 plans

- Issue further LMS policy position statements to support mathematics in schools, colleges and in Higher Education Institutions.
- Continue the work of the sub-committee on Teaching Mathematics as a Career.

MANAGING THE SOCIETY EFFECTIVELY

Objective: to manage the Society's affairs and resources effectively and efficiently, operating where appropriate to make a not-for-profit financial return on activities, and to seek a variety of funding sources to support the Society's work.

The Society aims to ensure that its resources are put to best possible use in achieving its mission and objectives. In all its operations it aims to ensure the longevity of the Society and plan for future circumstances, while also meeting the current needs of mathematics and its community.

In doing so the Society ensures it follows best governance practices by operating in accordance with its Charter, Statutes and By-Laws and by referring to guidance from the Charity Commission and, where appropriate, professional advisors (Annex 1).

The Society is governed by a Council of Member Trustees, elected by the membership from the mathematical community (Annex 1). Day-to-day operations are undertaken by a full-time equivalent (FTE) staff of 15.6 (Annex 4). Council has chosen to delegate decision making on a number of matters to 18 standing committees and has also set up a number of temporary ad-hoc committees to deal with specific items of business (Annex 2). Council also maintains and reviews annually a Risk Register with respect to all

activities undertaken by the Society.

The Society runs its financial operations in accordance with best accounting practices and ensures that all its plans and activities are underpinned by a sound financial basis. The Society's financial and governance affairs are externally audited on an annual basis.

The Society continues to update its Data Protection Policy, Privacy Notice and Procedures as new legislation is released.

More detailed information on how the Society operates is available in the sub-sections that follow:

- Governance and Public Benefit
- Financial Review
- De Morgan House
- Statement of Trustees' Responsibilities

Governance and the Public Benefit

Governance

The Society's governing body is its Council, members of which are also the Trustees of the charity. The Council consists of 20 members of the Society of whom 8 are Officers (including the President) and 12 are Members-at-Large, including one 'Member-at-Large (Librarian)'.

The Officers of the Society, together with the Executive Secretary, comprise the Finance and General Purposes Committee (F&GPC), which is responsible for providing advice to Council on ad-hoc matters, implementing Council's decisions and ongoing financial management.

All candidates for election to Council are provided with information on the roles and responsibilities of Trustees. Those elected attend an induction normally in advance of their first Council meeting, which includes information on the work of Council, its strategies and plans, the operation of the financial systems, the administration of the Society and the responsibilities of a Trustee. All Council members are required to return a Declaration of Interests, a Declaration as a Fit and Proper Person, and to sign up to the Society's Anti-Bribery policy; these declarations must be renewed by all Trustees on an annual basis. Staff in management positions also sign an annual Declaration of Interests.

Council met five times in 2018-19: in October and November 2018 and in February, April and June 2019 (F&GPC met four times: in September 2018 and in January, March and June 2019). The Society held an Annual General Meeting in November 2018 and a mid-year General Meeting in June 2019.

Council has established several standing committees which advise Council and to which it has delegated some decision making. A list of all committees and committee membership is given in Annex 2. A review of the terms of reference of the committees is being undertaken to ensure that the Society has the appropriate committees to implement its strategies and activities effectively.

As Trustees, Council members receive reimbursement only for expenses actually incurred in attending meetings or representing the Society. However, if a Trustee works over and above normal Trustee's duties,

the Society may pay an honorarium for that service if there is a written agreement produced in advance between the Society and the Trustee outlining the work to be undertaken and stating the maximum amount.

The Society depends heavily on the unpaid voluntary work of many of its members and others across the mathematical community, such as those who referee papers submitted to the Society's publications, those who edit those publications or serve on the Society's Editorial Advisory Boards, those who serve on the Society's committees and those who represent the Society on other bodies (listed in Annex 3), together with the members of the Council themselves, many of whom undertake heavy burdens for the Society.

Public benefit

In shaping objectives for the year and planning activities, Council has considered the Charity Commission's guidelines on Public Benefit, including the guidance, 'Public benefit: running a charity' (PB2).

Council holds that the development and extension of mathematical knowledge, expanding humanity's ability to understand and affect the natural, artificial and social worlds, leads to public benefit, providing for improved health and wealth for nations and individuals and providing tools to understand and sustain the world in which we live. The Society's activities directly correlate with its mission and its objectives, and are focused on: supporting mathematicians in their endeavours through grants for research collaboration; sharing of knowledge through conferences and publications; improving the quality of mathematics education for people of all ages; promoting mathematics and its impact on everyday life to the general public; and encouraging policies that will benefit mathematics.

Members of the general public are able to participate without charge in all Society activities of a suitable level. Charges for events aimed at professional mathematicians, whether or not members of the Society, are kept low, a policy that is maintained when deciding on criteria for grant awards; publications are sold at prices that keep them competitive in the academic publishing world.

Financial Review

In the period 2018/19 income (excluding gains on investment assets) exceeded expenditure by £453k, against an expected budget forecast of £96k. This was due to cost savings, underspends in activities, and increased income as a result of exchange rate advantage (fall of pound sterling against the dollar) on global sales of LMS publications.

The unrealised loss on investments value was £11.5k.

During the year, the value of the Society's assets rose from £17.2m to £17.6m, which is slightly above inflation for the period.

Publications income is currently in a steady state, and the Society will continue to seek new opportunities for the expansion of its publishing programme. However, Council is acutely aware of the potential risks to publications income and continues to keep this under

review. The Society is actively investigating new initiatives to attract alternative funding.

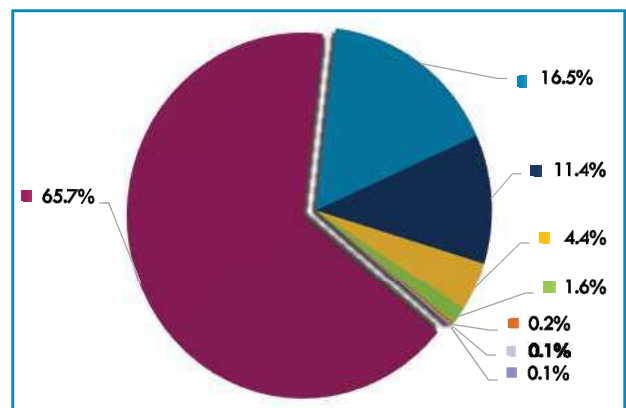
Despite this risk, the Society remains in a strong position financially and has significant reserves. Given the continuing volatility in the economic climate it will keep under review where resources might best be allocated to further its aims.

Budgets are set by Council on the recommendation of F&GPC, based on bids from budget holders, in line with the strategic objectives of the Society. Expenditure is monitored quarterly by F&GPC, which is responsible for recommending any variation in the budgets set by Council.

The full audited accounts of the Society, including the accounting policies, are annexed to this Report.

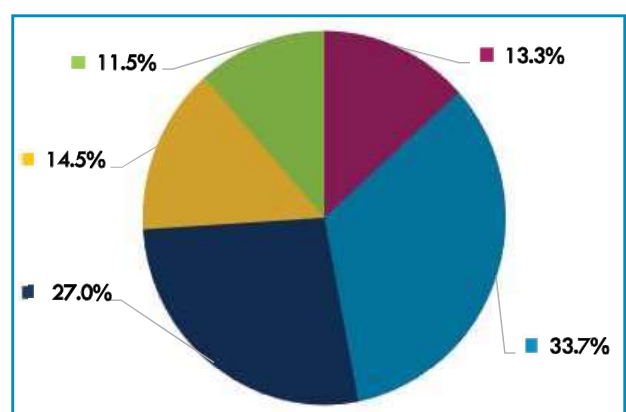
Income

Publications	65.7%
Investments	16.5%
Conference facilities and rentals	11.4%
Members' subscriptions	4.4%
Grants and Contracts	1.6%
Advertisements in LMS Newsletter	0.2%
Donations	0.1%
Other	0.1%



Expenditure

Advancing mathematics (eg. membership, links with the mathematics community, library, prizes)	13.3%
Enabling mathematics (eg. grants, and training courses)	33.7%
Disseminating mathematics (eg. publishing, meetings and lectures)	27.0%
Promoting mathematics (eg. policy makers, education, public, media)	14.5%
Other (eg. managing residential properties and conference facilities, investment management fees)	11.5%



Risk management

Council and F&GPC annually review the Society's Risk Register identifying and quantifying potential risks to the Society and its plans and objectives, and laying out systems and strategies for mitigating those risks. These are addressed under the following headings: Governance and Management, Law and Regulation, Reputation, External and Environment, Financial, and Operational. In certain cases Council has established Designated Funds to set against potential risks (see Reserves below); the risks or commitments that are covered by each fund are reviewed and revised annually.

The Risk Register includes the potential threat to Publications income which, in the worst-case scenario, could have a devastating effect on the income which the Society derives from its learned journals. This income contributes to the Society meeting its charitable objects. In the past year, Council has sought information and expert advice in order to be better prepared for possible future changes to the publishing models and income streams. At its last Strategic Retreat Council considered various financial models derived from certain assumptions regarding the potential future income of the Society. Open Access publishing remains under close consideration.

Reserves

Council reviews its policy on reserves on an annual basis. The unrestricted reserves comprise a General Fund and other Designated Funds. In addition there are several Restricted Funds. Council has several specific Designated Funds to meet the potential costs of activities, to set against risks relating to the building and to publishing (see above) and to meet grant awards made for projects or activities which span a number of years - these are given at Annex 6. The Society has a broad-ranging programme of activities in support of its strategic objectives as described in this report. While some activities are supported from Restricted Funds, all need continuity of funding. Due to the scale and future risks to academic publishing (a key part of the Society's income), Council continues to operate from the basis that it is prudent to hold a General Fund from which income can be drawn to maintain and extend its charitable activities. The

General Fund acts both to provide income for activities not funded from Designated or Restricted Funds, and also as a 'free reserve', providing adequate working capital for the Society to operate effectively and efficiently, and for the pursuit of the Society's objectives as Council may from time to time determine.

The Society holds several Restricted Funds, as described in the audited accounts. These originate from various donations and bequests, and are invested and accounted for on an aggregated 'total return' basis.

Grant Awards and Commitments

Where the Society has contractual or constructive obligations to make grant payments these amounts are accrued in the accounts in accordance with the requirements of the Statement of Recommended Practice (SORP). Resources expended on grants shown in the Statement of Financial Activity (SoFA), therefore, recognise (within the year the grant is awarded) both liabilities and provisions for grant commitments. Normally grant commitments will be claimed by the end of the financial year, although the claim period may be extended by a further year where the start or end date of the grant so requires.

The Society also awards some grants with conditions for payment (such as delivery of a specific level of service or other specific output). Such commitments are reserved in the Designated Funds, and the grants are only recognised in the SoFA when the recipient of the grant has provided evidence of the specific service or output.

Investments

The Society decided to invest up to 30% of its relevant assets in residential property, as valued at the time of purchase, with the remainder given over to the Society's investment managers. Investment in such residential property is directly managed by the Society rather than the investment managers. The percentage calculation excludes the value of De Morgan House, though this could be reviewed at any point. Also excluded are any investments made by the investment managers in the property area of asset classes.

1. Quoted investments

The current quoted investment strategy for the portfolio, which is managed by investment managers Schrodgers (Cazenove), has been modelled to achieve RPI + 4% per annum nominal return over five years (a 4% return in real terms after allowing for average service sector wage inflation). Due to the change in the investment climate Council agreed to accept a lower than 4% return in order to reduce risks. Close attention is paid to our investment policy and to the performance of Schrodgers, with whom we have regular meetings.

The drawdown each year, as agreed by Council, follows the 'Yale model' and consists of 50% of the previous year's drawdown together with 3.5% of 50% of the current value of the portfolio.

Thus the drawdown is determined by a formula and so may be less or greater than the dividends and interest earned: it is shown in the SoFA as Investment Income. The growth in the value of the Society's investments (capital plus income) is the sum of this drawdown and the figure shown in the SoFA for Gains on investment assets. The scale of the Society's activities is designed to match this level of return through the annual budgeting process.

The majority of the Society's reserves - both Restricted and Unrestricted - are invested and managed by the Society's investment managers, Schrodgers (Cazenove). It is Society policy to review on a regular basis the performance of those professional bodies it employs. Accordingly, Council has an Investment Sub-Committee, which includes six external financial experts, to provide professional advice on the Society's investments and on Schrodgers' performance. Council has confirmed an investment mandate with discretionary powers with Schrodgers, based on a 'total return' basis, designed to maximise investment income while maintaining the real value of the investments.

The investment managers have discretion in both the

mix and selection of investments in order to meet the growth targets for the portfolio, without exposing to undue risk the Society's reserves, on which its future capacity to maintain its activities depends. The primary long-term target is that the Society's portfolio produces a total return of inflation (RPI) plus 4% pa. The portfolio has exposure to a range of equity, cash, fixed-interest investments and alternative asset classes in both UK and overseas markets, accessed via a single investment in the Schroder Charity Multi-Asset Fund. A summary of the main categories of investments and the geographical split is provided in the notes to the financial statements in accordance with the Charities' SORP. The Schroder Charity Multi-Asset Fund is a common investment fund designed for charities seeking to maintain the real value of their capital over the medium to long term whilst generating a sustainable and reliable distribution level (from income and capital). The portfolio which aims to deliver returns similar to equity markets but with a lower level of volatility, is well diversified across asset classes. This approach is considered by the trustees to give optimum total return without exposing the Society's investments to undue risk; it is consistent with the principles set out in the Charity Commission guidelines Investment of Charitable Funds, Basic Principles (CC14) and conforms with the Trustee Act 2000.

2. Residential property investments

As a safeguard against fluctuating performance of the stock exchange, the Society expanded its investments portfolio to include residential property and now owns six long lease residential properties (four in Central London and two in the Birmingham area), all of which are rented out. The rental derived is shown on the SOFA under 'Investment Income'. The growth in the value of the Society's residential property investment will be shown in the SoFA as Gains on investment assets. The primary long-term target of the Society's residential property is to produce a yield of 4% pa and to increase in capital value by at least the rate of inflation.

De Morgan House

Staff management

The Society currently employs a team of full and part time staff, who are predominantly based within De Morgan House. A list of staff in post during the period is at Annex 4.

The Executive Secretary is responsible for staff-related issues with strategic overview provided by the Society's Personnel Committee.

The remuneration of all staff within the Society is considered in detail by Personnel Committee, and set against the salary scales of the University of London. Any recommendations from the Personnel Committee regarding remuneration are then formally approved by the Trustees (the governing Council). The pay ranges for key management personnel (Senior Management Team) are determined and set by Trustees following analysis of roles and performance by the Personnel Committee. The Personnel Committee will also, as appropriate, compare the Society's pay ranges with those of similar roles in other similar organisations.

De Morgan House

The Society holds a long lease (to 2109) from Bedford Estates on De Morgan House, 57-58 Russell Square, London, WC1. It uses these premises: (a) to house its administrative headquarters; (b) to hold its meetings and conferences in the promotion of mathematics; (c) to let out offices on the upper floors to other organisations on a commercial basis; and (d) for function rooms which it lets to other organisations for their own purposes. This last category includes other mathematical and charitable organisations, where there is both a mathematical and financial benefit; discounts are available and some rooms are offered at either reduced rates or at no charge as part of the Society's charitable giving. £37,765 has been granted in charitable giving for LMS rooms in this manner over the last financial year.

In 2018-19 the use of the Conference Centre for mathematical meetings and as a source of revenue achieved the highest level of income and occupancy since the operation began in 2006. All rooms available for commercial tenancies are currently full.

All six residential properties owned by the Society are currently let.

Statement of Trustees' Responsibilities

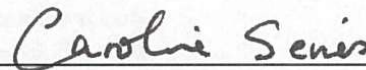
The trustees are responsible for preparing the Trustees' Report and the financial statements in accordance with applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

The law applicable to charities in England and Wales requires the trustees to prepare financial statements for each financial year which give a true and fair view of the state of the affairs of the charity and of the incoming resources and application of resources of the charity for that period. In preparing these financial statements, the trustees are required to:

- select suitable accounting policies and then apply them consistently;
- observe the methods and principles in the Charities' Statement of Recommended Practice (SORP);
- make judgements and estimates that are reasonable and prudent;
- state whether applicable accounting standards have been followed, subject to any material departures disclosed and explained in the financial statements;
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the charity will continue in business.

The trustees are responsible for keeping proper accounting records that disclose with reasonable accuracy at any time the financial position of the charity and enable them to ensure that the financial statements comply with the Charities Act 2011, the Charity (Accounts and Reports) Regulations 2008 and the provisions of the Royal Charter. They are also responsible for safeguarding the assets of the charity and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

For and on behalf of the Council of the London Mathematical Society:



Professor Caroline Series
(President)



Date

ANNEX 1 - COUNCIL, EXECUTIVE TEAM AND PROFESSIONAL ADVISERS

Members of Council during the period 1 August 2018 to 31 July 2019

President:	Caroline Series
Vice-Presidents:	John Greenlees Cathy Hobbs
Treasurer:	Robert Curtis
General Secretary:	Stephen Huggett
Programme Secretary:	Iain Stewart (until November 2018) Chris Parker (from November 2018)
Publications Secretary:	John Hunton
Education Secretary:	Kevin Houston
Members-at-Large:	June Barrow-Green (Librarian) (until November 2018) Mark McCartney (Librarian) (from November 2018) Alexandre Borovik Tara Brendle Mark Chaplain Francis Clarke (until November 2018) Andrew Dancer David E. Evans Tony Gardiner Brita Nucinkis Mariya Ptashnyk (from November 2018) Gwyneth Stallard Anne Taormina (from November 2018) Alina Vdovina Sarah Zerbes (until November 2018)
In attendance:	Eugenie Hunsicker (Chair, Women in Mathematics Committee)

Executive Management Team during the period 1 August 2018 to 31 July 2019

Executive Secretary:	Fiona Nixon
Head of Finance and Accounting:	Ephrem Abate
Head of Society Business:	Lindsay Walsh
Head of Conferences and Building:	Dominic Clark (until November 2018) Andrew Dorward (from December 2018)

External advisors

Auditor:	Kingston Smith LLP, Devonshire House, 60 Goswell Road, London, EC1M 7AD
Investment Advisers:	Cazenove/Schroder & Co. Limited, 12 Moorgate, London, EC2R 6DA
Bankers:	National Westminster Bank plc, 208 Piccadilly, London, W1A 2DG
Solicitors:	Bates Wells & Braithwaite, 2-6 Cannon Street, London, EC4M 6YH

Registered address

London Mathematical Society, De Morgan House, 57-58 Russell Square, London, WC1B 4HS
www.lms.ac.uk

Charity registration number

252660

ANNEX 2 - COMMITTEE MEMBERSHIP (as at July 2019)

Membership of Committees as at 31 July 2019

Computer Science Committee: P. Wong (Chair), C. Kestner, J. Davenport (Institute of Mathematics and its Applications (IMA)), R. Heirons (British Computer Society-Formal Aspects of Computing Science (BCS-FACS)), R. Leese, R. Perry (Engineering and Physical Sciences Research Council (EPSRC) observer), J. Shawe-Taylor, I. Stewart.

Development Committee: President (Chair), Treasurer, General Secretary, Executive Secretary, G. Dales, A. Dancer, J. Rodrigo, C. Roney-Dougal.

Early Career Research Committee: C. Parker (Chair), Vice-President Greenlees, H. Johnston, D. Maclagan, R. Newton, S. Olhede, N. Peake, G. M. Stallard, A. Thillaisundaram, S. Velani, S. Whitehouse.

Education Committee: Education Secretary (Chair), Vice-President C. Hobbs, J. Anderson, T. Brendle, P. Glaister, K. Golden (Heads of Departments of Mathematical Sciences (HoDoMS)), J-A Lees, V. Neale, T. Roper, C. Saker, J. White.

Finance and General Purposes Committee: President (Chair), Vice-Presidents, General Secretary, Treasurer, Programme Secretary, Publications Secretary, Education Secretary, Executive Secretary.

International Affairs Committee: President (Chair), Programme Secretary, Publications Secretary, General Secretary, C. Budd (UK representative to International Commission on Mathematical Instruction (ICMI)), J. Fraser (Delegate of President of the Edinburgh Mathematical Society (EdMS)), P. Glaister (IMA), J. Parker, S. Schroll, N. Walkey (Royal Statistical Society (RSS)).

Investment Sub-Committee: Treasurer (Chair), All other Members of Finance and General Purposes Committee, R. Bogni, J. Dodd, G. Keniston-Cooper, S. Mossaheb.

IT Resources Committee: President (Chair), Vice-President Hobbs, Executive Secretary, F. Clarke, J. Cremona, K. Gillow, I. Stewart.

Library Committee: Librarian (Chair), Publications Secretary, LMS Archivist, C. Hollings.

Newsletter Editorial Board: I. Moffatt (Editor-in-Chief), J. Barrow-Green, T. Brzezinski, L. Di Vizio, J. Fraser, J. Grbic, T. Hudson, A. Johansen, B. Lionheart, M. McCartney, K. Meeks, V. Neale, S. Oakes, A. Wade, General Secretary.

Nominating Committee: K. Falconer (Chair), I. D. Abrahams, D. Evans (Council), R. Heath-Brown, H. Dugald Macpherson, M. Mathieu, U. Tillmann, E. Winstanley.

Personnel Committee: Vice-President C. Hobbs (Chair), Publications Secretary, Executive Secretary, D. Applebaum, David E. Evans, G. Stallard.

Prizes Committee: President (Chair), I. Gordon, D. Higham, D. Kuhn, A. Lazarev, M. Liebeck, P. Markowich, E. Shargorodsky, A. Taormina.

Publications Committee: Publications Secretary (Chair), Vice-President C. Hobbs, Treasurer, M. Brown, M. Chaplain, R. Kessar, I. Leary, C. Parker, T. Sanders, S. Taylor, R. Thomas, A. Turner.

Research Grants Committee: A. Dancer (Chair), J. Brodski, M. Chaplain, D. Schuetz (Durham Symposium representative), A. Lazarev, N. Peyerimhoff, D. Schuetz, G. Stallard, A. Turner, A. Vdovina.

Research Policy Committee: Vice-President J. Greenlees (Chair), J. Giansiracusa, S. Howison, O. Jensen, C. Molina-Paris, S. Olhede, R. Thomas, J. van den Heuvel (HoDoMS), S. Zerbes, K. Brown (observer).

Society Lectures and Meetings Committee: I.A. Stewart (Chair), M. Kambites, K. Leschke, B. Nucinkis (Observer, incoming Chair) N. Petrovskaya, M. Todd, V. Styles, A. Vdovina.

Women in Mathematics Committee: E. Hunsicker (Chair), Vice-President J. Greenlees, S. Beg (Operational Research Society (ORS)), T. Brendle (Edinburgh Mathematical Society (EdMS)), A. Davis, S. Lombardo, Y. Kyrychko, D. Maclagan, J. McKee, S. Pumpluen, L. Rodgers (RSS), C. Smith, M. Sommacal, A. Taormina (European Women in Mathematics (EWM)).

Sub-Groups, Ad-hoc Committees and LMS appointments as at 31 July 2019

Publications Nominating Group: Publications Secretary (Chair), G. Brown, M. Gross, M. Haskins, P. Jørgensen, M. Pollicott, U. Tillmann, C. Tretter

Good Practice Scheme Steering Group: A. Davis (Chair), Vice-President J. Greenlees, P. Davies, E. Hunsicker (Chair, Women in Mathematics Committee), S. Lombardo, N. Mazza, A. Taormina, J. van den Heuvel (HoDoMS), J. Walker.

LMS-IMA Joint Working Group (LMS members): President (Chair), Vice-President J. Greenlees, Executive Secretary.

LMS-IMA Crighton Medal Committee 2019 (LMS Members): President, P. Ashwin, D. E. Evans.

Mentoring African Research in Mathematics (MARM) Board: J. Ball (Chair), H. Clemens (IMU), S. Huggett (LMS), F. Neumann (LMS), W. Ogana (AMMSI), Executive Secretary.

Undergraduate Summer School Scientific Committee: A. Hone, F. Kirwan, S. Tabachnikov, A. Veselov.

Standing Orders Review Group: General Secretary (Chair), President, J. Barrow-Green, A. Borovik, Executive Secretary.

Website Working Group: Council Webmaster (Chair), Vice-President J. Greenlees, J. Barrow-Green, A. Borovik, P. Cameron, Executive Secretary.

Council Diarist: B. Nucinkis.

Council Webmaster: S. Huggett.

LMS/EMS Newsletter Correspondent: D. Chillingworth.

Scrutineers: C. Goldie, C. Lance.

ANNEX 3 - EXTERNAL REPRESENTATIVES (as at July 2019)

Representatives on external committees and boards as at 31 July 2019

Athena Forum: Chair, Women in Mathematics Committee.

British Science Association Mathematics Section: Education Secretary.

British Mathematical Colloquium Scientific Committee: M. Devisscher, S. Rees, C. Roitzheim.

Council for the Mathematical Sciences Board: President, Vice-President C. Hobbs, Vice-President J. Greenlees, Executive Secretary (any 3 of).

Council for the Mathematical Sciences-Engineering and Physical Sciences Research Council (CMS-EP SRC) Liaison Sub-Group: Vice-President C. Hobbs, Vice-President J. Greenlees, Executive Secretary (any two of).

European Mathematical Society Council: President, Programme Secretary, M. Mathieu, C. Roney-Dougal.

Heads of Departments of Mathematical Sciences Committee: General Secretary.

International Centre for Mathematical Sciences (ICMS) Board: M. Kim.

International Centre for Mathematical Sciences (ICMS) Programme Committee: C. Drutu, J. Gog.

International Commission on Mathematical Instruction (ICMI) UK representative: C. Budd.

Isaac Newton Institute (INI) Management Committee: U. Tillmann.

Isaac Newton Institute (INI) Scientific Steering Committee: M. Harris, V. Isham.

Isaac Newton Institute (INI) Correspondent: B. Pelloni.

Joint Mathematical Council (JMC): Education Secretary.

Parliamentary and Scientific Committee: President, Vice-President J. Greenlees, Vice-President C. Hobbs, Executive Secretary.

STEMM Disability Advisory Committee: Chair, Women in Mathematics Committee.

Teaching Training Scholarships Management Group: Education Secretary

ANNEX 4 - STAFF

Staff in post in the period 1 August 2018 to 31 July 2019

Executive Secretary's Office

Executive Secretary	Fiona Nixon
PA to the Executive Secretary	India Sivyer
Head of Finance and Accounting	Ephrem Abate
Accounts Assistant	Valeriya Kolesnykova ◇
Administrative Editor, LMS Newsletter	Susan Oakes ◇*

Publications

Publications Development Manager	Suzanne Abbott
Editorial Manager	Ola Törnkvist
Publications and Communications Administrator	George Ross (until December 2018)
Publications Assistant	Georgina Gale (from December 2018)

Society Business

Head of Society Business	Lindsay Walsh
Membership and Engagement Officer	Elizabeth Fisher (until October 2018)
Membership and Grants Manager	Elizabeth Fisher (from October 2018)
Council and Research Officer	Katy Henderson (until February 2019)
Society Business Officer	Katherine Wright
Society Communications Officer	John Johnston
Society Governance Officer	James Taylor (from May 2019)
Grants and Membership Administrator	Anthony Byrne (until May 2019)
	Ben Lloyd (from June 2019)

Conferences and Building Group

Head of Conferences and Building	Dominic Clark (until November 2018)
	Andrew Dorward (from December 2018)
Conference and Events Coordinator	Zee Edah-Tally (until January 2019)
Sales, Marketing and Events Coordinator	Tess Frampton (from March 2019)
Receptionist (job share)	Valeriya Kolesnykova ◇
	Angela Waidson ◇

◇ Part-time posts * not based at De Morgan House

ANNEX 5 - GRANT SCHEMES

General policy on grant-making

The grant schemes are funded from the Society's resources received from its endowments, investments and publishing activities and are one of the primary mechanisms through which the Society achieves its central purpose, namely to 'promote and extend mathematical knowledge'. The principles governing its grant-giving are:

- As a charity the Society is able, and wishes, to take advantage of different opportunities and to work within a different regulatory framework from other funding bodies, such as the Engineering and Physical Sciences Research Council (EPSRC). Its grant schemes are focused accordingly.
- The Society's funds are under pressure, and it is not able to make awards as often or as fully as it would like.
- The Society does not normally meet the full cost of an activity. Rather it will aim to give added value to an event largely funded by other means, or to bridge the gap between cost and the resources that might reasonably be made available by a university department.
- The Society does not pay Full Economic Costs.
- The Society does not make grants to cover departmental overheads, secretarial costs, etc., which could be seen as part of normal departmental provision.
- The Society does not make grants to cover room hire.
- Applicants are expected to make economical travel arrangements where possible.
- The Society expects that organisers of conferences and activities who are seeking grants from the Society will invite both male and female speakers (or explain why this is not appropriate or possible) and give consideration to the provision of mechanisms to enable participation by people with children or family responsibilities, in line with the Society's policy on Women in Mathematics.
- The Society will not allow its limits for individual grant schemes to be exceeded by artificially sub-dividing an application into a number of separate requests under different headings.
- The Society considers it to be the responsibility of the institution to which the grant is paid to check receipts in accordance with its normal financial procedures.

The Society's committees that assess applications for grants are made up of mathematicians with a wide spread of research interests. Under most schemes, proposals are judged by the committees themselves, although they may seek advice. Each committee judges each application on its merits.

Any mathematician working in the UK is eligible to apply for a grant but for some schemes if they are not a member of the Society, then the application must be countersigned by a member who is prepared to support the application.

Summary of main grants and training schemes

Conference Grants (Scheme 1)

Grants are made to the organisers of conferences to be held in the UK. Priority is given to the support of meetings where an LMS grant can be expected to make a significant contribution to the viability and success of the meeting. Support of larger meetings of high quality is not ruled out, but for such meetings an LMS grant will normally cover only a modest part of the total cost.

Visitors to the UK (Scheme 2)

The aim of the Scheme is to provide grants to mathematicians based within the UK to partially support visitors to the UK; the visitors are expected to give lectures in at least three separate institutions.

Support of Joint Research Groups (Scheme 3)

The Scheme is to provide support for groups of mathematicians, working in at least three different locations (of which at least two must be in the UK), who have a common research interest and who wish to engage in collaborative activities. The grant award covers two years, and is expected that a maximum of four meetings (or an equivalent level of activity) will be held per academic year.

Research in Pairs (Scheme 4)

The Scheme is to provide small grants to UK-based mathematicians to help support short visits of intensive collaborative research with colleagues in other institutions, both in the UK and abroad.

Collaborations with Developing Countries (Scheme 5)

The Scheme is to provide grants to mathematicians within the UK to support visits for collaborative research, or academic activities that will benefit the country concerned. Countries considered to be eligible for Scheme 5 funding are those contained within (but not exclusively limited to) the International Mathematical Union Commission for Developing Countries (IMU CDC) Definition for Developing Countries - <https://www.mathunion.org/cdc/about-cdc/definition-developing-countries>

Workshop-Symposia

The Society supports research workshops, which may be held anywhere in the UK and are an opportunity for a small group of active researchers to work together for a concentrated period on a specialised topic. Applications to support the development of research in an area not ready for a larger-scale application are welcomed; applications for partial support for larger events will only exceptionally be supported.

Computer Science Small Grants (Scheme 7)

The aim of the Scheme is to provide small grants to researchers based within the UK to help support visits for collaborative research at the interface of Mathematics and Computer Science.

British Colloquium for Theoretical Computer Science

The Society supports the annual meeting which provides a forum in which researchers in theoretical computer science can meet, present research findings, and discuss developments in the field. Specifically, the Society funds the costs of a speaker who is ordinarily from overseas and who is introduced as the 'LMS Keynote Lecturer in Discrete Mathematics'.

Caring Supplementary Grants

The Society recognises that parents and carers are sometimes prevented from attending conferences and meetings and making research visits because there is no provision for the extra costs incurred in caring for dependants. It is the LMS' view that institutions should make provision for caring costs but, while this is not largely the case, the Society is willing to make a supplementary grant as a contribution to the costs.

Grace Chisholm Young Fellowship

These fellowships aim to provide some support when a mathematical career is interrupted by family responsibilities, relocation of partner, or other similar circumstance, making possible some continuous mathematical activity and so enabling the fellow to be in a position to apply for posts when circumstances allow. Each holder will be based in a specific Mathematics Department in a University or Research Institute in the UK; the host is expected to provide an email address, use of library and IT facilities and access to research literature. The normal duration of a fellowship is one year.

Small Educational Grants

These grants support such activities as popular lectures, exhibitions, masterclasses, mathematical competitions, etc., that help to encourage joint mathematical ventures between higher education institutions and schools, or the development of projects that would improve the public image of mathematics.

Mathematics Teacher Continuing Professional Development (CPD) Grants

The Scheme is to provide opportunities for mathematics teachers to attend training which is specifically mathematical. Any application for a grant under this scheme must be made by a teacher of mathematics or Initial Teacher Education provider based in the UK. The grants are open to teachers of mathematics from primary school to A-Level or equivalent.

The grants are to support teacher attendance at one or two day conferences/events organised by professional mathematical organisations. The grants are also to assist providers of professional development to run conferences and courses that allow participants to further their professional development. The grants can also cover the costs of external trainers in schools or educational institutions.

Mentoring African Research in Mathematics (MARM)

The aim of the programme is to enable all mathematicians in Africa to pursue academic careers of the highest standard. The Society believes that enhancing and developing academic research and research institutions in Africa will help ensure that pursuing world-class mathematical careers within Africa will be both achievable and a more attractive option than moving permanently to the developed world. Over time, the strengthening of the mathematical community within Africa will benefit not only the African community but mathematics as a whole. Grants are awarded for two-year academic partnerships between European and African institutions for activities including exchange visits, lectures and workshops, conferences, PhD supervision and mentoring support.

Support for Mathematics in Africa

The Society awards grants to contribute to the travel costs of postgraduates attending conferences in Africa, organised or supported by the African Mathematics Millennium Science Initiative (AMMSI).

Summary of grants and training schemes supporting Young Mathematicians and Early Career Researchers

Undergraduate Research Bursaries in Mathematics

The Scheme aims to give training in research to undergraduates with research potential to encourage them to consider a career in scientific research. Grants are awarded for a six-to-eight week summer research project undertaken with the guidance of a research supervisor.

Undergraduate Summer Schools

The goal of the Summer Schools is to introduce exceptional pre-final year undergraduates to research mathematics and, in particular, to make them think seriously about an academic career at this stage. The Summer Schools are a combination of short lecture courses with problem-solving sessions and colloquium style talks. Talks are given by lecturers mostly (though not exclusively) from the UK, including high-profile speakers. The Schools are for around 50 students and involve 10 lecturers. The event is hosted by a UK university for a period of 10 days in summer.

LMS Prospects in Mathematics

The Society provides support for this annual event, primarily for final year undergraduates and Masters' Students who are considering applying for a PhD after they have completed their studies to discuss current research and potential career opportunities.

Grants for Meetings of Undergraduate Mathematical Societies

The Society is pleased to offer funds of up to £500 to support meetings of Undergraduate Mathematical Societies at UK universities to cover the cost of an invited speaker to the meeting, and towards the cost of a reception after the meeting.

LMS Research Schools Programme

The purpose of the Research Schools is to provide training for young researchers in a core area of mathematics. Students and post-docs can meet a number of leading experts in the topic as well as other young researchers working in related areas. The series aims at the highest international standing of these research schools, allowing for support of both international lecturers and participants. The main criteria for funding are the topicality and the mathematical significance of the course material, the general alignment with the mission of the LMS) and the likely demand for places nationally and internationally, and the standing of the proposed lecturers in the international mathematical community.

Cecil King Travel Scholarship

The London Mathematical Society annually awards a £5,000 Cecil King Travel Scholarship in Mathematics, to a young mathematician of outstanding promise. The Scholarship is to support a period of study or research abroad, typically for a period of three months, in any area of mathematics. The Cecil King Travel Scholarship was established in 2001 by the Cecil King Memorial Fund. The award is made by the Council of the London Mathematical Society on the recommendation of the Cecil King Prize Committee, nominated by the Society's Early Career Research Committee. As per the terms of the bequest left to the Cecil King Memorial Foundation, which funds the Travel Scholarship, applicants must be nationals of the UK or the Republic of Ireland and either registered for or having completed a doctoral degree within 12 months of the closing date.

Postgraduate Research Conferences (Scheme 8)

The aim of this Scheme is to support postgraduate research conferences, organised by and for postgraduate research students, to be held in the UK.

Young Researchers in Mathematics Conference

The Society provides a grant for the Young Researchers in Mathematics Committee to help support the Young Researchers in Mathematics Conference, a mathematics conference specifically targeting early career researchers.

LMS Early Career Fellowships

To support early career mathematicians in the transition between PhD and a postdoctoral position, the London Mathematical Society offers up to 8 Fellowships of between 3 and 6 months to mathematicians who have recently or will shortly receive their PhD. The award will be calculated at £1,200 per month plus a travel allowance. The fellowships may be held at one or more institutions but not normally at the institution where the fellow received their PhD.

Celebrating New Appointments (Scheme 9)

Grants are made to provide partial support for meetings held in the UK to celebrate the appointment of a new lecturer in mathematics at a UK institution. The aim of the grant award is to embed the new lecturer in their home institution and the local mathematical community, and to allow the new appointment to create useful and lasting relationships with the local mathematical community. It is expected that the new appointment themselves will present a lecture at the meeting.

Travel Grants for Early Career Researchers

The Travel Grant Scheme provides partial support for UK-based early career researchers to attend conferences or undertake research visits either in the UK or overseas. Grant holders are early career researchers in mathematics, based in the UK, defined as a Master's student, PhD/research student or anyone who has completed their PhD in the last five years (excluding academic career breaks). The scheme is open to both members and non-members of the LMS.

Women in Mathematics Events

These events are aimed at academic mathematicians (from at least postgraduate level and up and may include undergraduates). The events are intended to help early career women mathematicians when considering the next stages in their careers and typically have included mathematical talks combined with panel discussions, social opportunities and networking. Individuals or groups are able to express interest in organising and hosting an event.

Girls in Mathematics Events

Events are aimed at schoolgirls, up to and including A-levels or equivalent, with mathematics as a main focus. Individuals or groups are able to express interest in organising and hosting an event.

Diversity in Mathematics Events

Diversity in Mathematics Days are a new initiative by the London Mathematical Society to support aspects of diversity beyond gender. One such day will be supported each year. Each annual event is expected to focus on some aspect of diversity in the Mathematical Sciences. The event is expected to feature both the work of people in the Mathematical Sciences, whether in industry or academia, who come from that diversity group, and also offer opportunities for mathematicians from that diversity group to receive mentoring and networking opportunities.

ANNEX 6 - RESERVE FUNDS

For the purposes of financial planning the Society has chosen to define Relevant Funds to consist of Quoted Investments + Residential Properties + Cash at bank. The Society is in the process of rebuilding the investment portfolio and guaranteeing a real return, hence the aim of inflation + 4% as the primary long term target. In order to maintain its value in real terms, Council considers that the present level of the Relevant Funds should (if possible) be increased to at least £20m by 2025. At present Residential Properties are making a return of 4% through rent, and more than keeping pace with inflation.

The Society normally maintains £600k free reserve (operating reserve) cash at bank to ensure that there is enough working capital to stabilise the Society's finances by providing contingency against unexpected events, as well as to handle losses in income and large unbudgeted expenses.

General Fund

The General Fund is to provide for the general operation of the Society including its charitable activities not funded from Designated or Restricted Funds. Within the Society's reserves, the General Fund is deemed an expendable reserve to be used in pursuit of the Society's objectives as Council may from time to time determine. At present the fund exists to assure the availability of resources for the Society's grant schemes and other continuing charitable activities in future years. This manages the risk to the Society's ability to generate income to provide for such activities and offers a contingency against threats such as open access.

General Fund	£13,402,318
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Building and Development Reserve Fund

This reserve, originally built up for the Society to purchase or rent its own property was utilised in part in the purchase of a leasehold property. This reserve fund exists to maintain the property in a state of good repair as required by the Lease holder, including in the case of disaster recovery should any major incident affect the physical aspects of the Society's offices. The agreed purposes and recommended levels as from the next financial year would be:

Rehousing and re-establishing the administration for one year should De Morgan House (DMH) to be lost through fire, etc.	£195,000
Costs of venue hire for all LMS meetings held in DMH	£15,000
Costs of re-establishing our work	£13,000
Dilapidations, were the Society to leave DMH	£23,000
External and Internal redecoration	£79,000
Major modifications and developments, unexpected repairs/replacement	£275,000
	£600,000

Publication Reserve Fund

This fund is to provide a reserve to meet the costs of producing and publishing the Society's LMS journals, including where the Society's income from these journals is unable to cover such commitments. It is intended that the reserve will be reviewed as circumstances arise each year. The agreed purposes and recommended levels are:

Repaying subscriptions income if we ceased to trade, and other commitments	£1,725,000
Buffer against over/under shooting the budget	£175,000
New ventures. Based on the costs of launching and producing a new journal	£750,000
Special strategic and commercial initiatives	£75,000
Insurance against breach of copyright and libel (including legal fees)	£275,000
	£3,000,000

Grants Payable Reserve Fund

This fund is set aside for grant awards to mathematical projects or activities which span a number of years. Such grants are reviewed annually and are paid once the recipient of the grant has provided a progress report with satisfactory performance of the project.

Grants awarded and approved by Council to be paid in future accounting periods	£299,000
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Special Activities Reserve Fund

Gifts and bequests received by the Society to be used for diverse activities in support of the Society's objectives	£32,380
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ANNEX 7 - AUDITOR'S REPORT

Opinion

We have audited the financial statements of The London Mathematical Society for the year ended 31 July 2019 which comprise the Statement of Financial Activities, the Balance Sheet, the Cash Flow Statement and notes to the financial statements, including a summary of significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards, including FRS 102 'The Financial Reporting Standard Applicable in the UK and Republic of Ireland' (United Kingdom Generally Accepted Accounting Practice).

In our opinion the financial statements:

give a true and fair view of the state of the charity's affairs as at 31 July 2019, and of its incoming resources and application of resources, for the year then ended; have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and have been prepared in accordance with the requirements of the Charities Act 2011.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the audit of the financial statements section of our report. We are independent of the charity in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Conclusions relating to going concern

We have nothing to report in respect of the following matters in relation to which the ISAs (UK) require us to report to you where:

- the trustees' use of the going concern basis of accounting in the preparation of the financial statements is not appropriate; or
- the trustees have not disclosed in the financial statements any identified material uncertainties that may cast significant doubt about the charity's ability to continue to adopt the going concern basis of accounting for a period of at least twelve months from the date when the financial statements are authorised for issue.

Other information

The other information comprises the information included in the annual report, other than the financial statements and our auditor's report thereon. The trustees are responsible for the other information. Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies

or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in this regard.

Matters on which we are required to report by exception

We have nothing to report in respect of the following matters where the Charities Act 2011 requires us to report to you if, in our opinion:

- the information given in the Trustees' Annual Report is inconsistent in any material respect with the financial statements; or
- the charity has not kept adequate accounting records; or
- the financial statements are not in agreement with the accounting records and returns; or
- we have not received all the information and explanations we required for our audit.

Responsibilities of trustees

As explained more fully in the trustees' responsibilities statement set out on page [x], the trustees are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the trustees determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the trustees are responsible for assessing the charity's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the trustees either intend to liquidate the charity or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

We have been appointed as auditor under section 144 of the Charities Act 2011 and report in accordance with regulations made under section 154 of that Act.

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with ISAs (UK) we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and

appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purposes of expressing an opinion on the effectiveness of the charity's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the trustees.
- Conclude on the appropriateness of the trustees' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the charity's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the charity to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Use of our report

This report is made solely to the charity's trustees, as a body, in accordance with Chapter 3 of Part 8 of the Charities Act 2011. Our audit work has been undertaken so that we might state to the charity's trustees those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to any party other than the charity and charity's trustees as a body, for our audit work, for this report, or for the opinion we have formed.

Neil Finlayson

Neil Finlayson, Statutory auditor
Moore Kingston Smith LLP

Date: 28/10/2019

Devonshire House
60 Goswell Road
London
EC1M 7AD

Moore Kingston Smith LLP is eligible to act as auditor in terms of Section 1212 of the Companies Act 2006.

ANNEX 8 - STATEMENT OF FINANCIAL ACTIVITIES

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STATEMENT OF FINANCIAL ACTIVITIES
For the year ended 31st July 2019

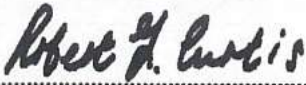

	Notes	Unrestricted General Funds £	Designated Funds £	Restricted Funds £	2019 Total Funds £	2018 Total Funds £
Income and endowments:						
Donations and legacies		3,929	-	-	3,929	2,702
Income from charitable activities:						
Membership subscriptions		137,687	-	-	137,687	131,743
Publications – LMS Periodicals	7a	1,500,850	-	-	1,500,850	1,405,825
Publications – Ventures and Royalties	7c,d	265,157	303,014	-	568,171	574,039
Grants and contracts	22	50,946	-	-	50,946	53,046
Total income from charitable activities		1,954,640	303,014	-	2,257,654	2,164,653
Income from other trading activities	3	365,257	-	-	365,257	333,007
Income from Investments	2	511,081	97	7,723	518,901	485,869
Other income		4,007	-	-	4,007	5,270
Total Income		2,838,914	303,111	7,723	3,149,748	2,991,501
Expenditure:						
Costs of raising funds	4	309,527	-	-	309,527	317,500
Expenditure on charitable activities:						
Advancing the interests of mathematics	5	346,393	-	13,500	359,893	356,100
Enabling mathematicians to undertake research and collaboration	6	802,634	107,210	-	909,844	843,960
Disseminating mathematical knowledge:						
- Costs of publications	7b,c,d	370,814	198,589	-	569,403	560,069
- Conferences and meeting programmes	8	158,476	-	-	158,476	174,901
Promoting mathematical research and its benefits	9	389,409	-	-	389,409	378,896
Total expenditure on charitable activities		2,067,726	305,799	13,500	2,387,025	2,313,926
Total expenditure		2,377,253	305,799	13,500	2,696,552	2,631,426
Net income/(expenditure) before gains and losses on investment		461,661	(2,688)	(5,777)	453,196	360,075
Net losses (gain) on investment assets	15	(12,956)	-	1,466	(11,490)	317,298
Net Income/ (expenditure) for the year		448,705	(2,688)	(4,311)	441,706	677,373
Transfers between funds	19,20	(342,476)	331,976	10,500	-	-
Actuarial gain on defined benefit pension schemes	18	11,072	-	-	11,072	3,117
Net movement in funds for the year		117,301	329,288	6,189	452,778	680,490
Reconciliation of funds:						
Total funds brought forward		13,285,017	3,602,092	286,613	17,173,722	16,493,232
Fund balances carried forward		13,402,318	3,931,380	292,802	17,626,500	17,173,722

The comparative figures for each fund are shown in the notes to the accounts, (see note 24).

BALANCE SHEET
as at 31st July 2019

	Notes	2019		2018	
		£	£	£	£
Fixed Assets					
Fixed Asset Investments					
Quoted Investment	14a	11,398,171		11,324,053	
Residential Property	14b	3,266,950		3,409,900	
			14,665,121		14,733,953
Tangible Fixed Assets					
Leasehold Property	16	1,254,887		1,299,704	
Fixtures, Fittings and Equipment	16	22,977		29,928	
			1,277,864		1,329,632
			15,942,985		16,063,585
Current Assets					
Medals in stock		1,531		3,061	
Debtors	17	241,861		285,633	
Cash at bank and in hand		2,412,290		1,870,449	
			2,655,682		2,159,143
Liabilities:					
<i>Creditors: Amounts falling due within one year</i>					
Creditors	18	692,894		711,548	
Deferred Income	18	120,262		167,375	
			813,156		878,923
Net current assets			1,842,526		1,280,220
<i>Creditors: Amounts falling due after more than one year</i>					
Provision of Pension Liability	18		(159,011)		(170,083)
Total Net Assets			17,626,500		17,173,722
Represented by:					
General Funds	20	13,402,318		13,285,017	
Designated Funds	20	3,931,380		3,602,092	
Restricted Funds	19	292,802		286,613	
			17,626,500		17,173,722

Approved on behalf of Council and authorised for issue on:

 Professor Robert Curtis (Treasurer)	 Date
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The notes on pages 46 to 65 form part of these financial statements

Cash Flow Statement
For the year ended 31 July 2019

	2019		2018	
	£	£	£	£
Cash flow from operating activities				
Net movements in funds	452,778		680,490	
Add (Deduct) gains on investments (note 15)	11,490		(317,298)	
Add back re-invested gains (note 2)	63,582		56,650	
Add back investment management fees (note 4)	55,135		55,766	
Add back VAT on investment management fees	2,206		2,230	
Deduct investment income (note 2)	(518,901)		(485,869)	
Add back depreciation charge (note 16)	54,143		55,084	
Decrease / (Increase) in debtors (note 17)	43,772		(48,904)	
Decrease / (Increase) in medals in stock	1,530			
(Decrease)/increase in creditors (note 18)	(76,839)		211,884	
	<hr/>		<hr/>	
Net cash (used in)/ provided by operating activities		88,896		210,033
Cash flow from Investing activities				
Purchase of tangible fixed assets (note 16)	(2,375)		(27,204)	
Purchase of fixed asset investments (note 14)	(63,605)		(422,546)	
Investment income (note 2)	518,901		485,869	
	<hr/>		<hr/>	
Net cash provided /(used in) by investing activities		452,921		36,119
		<hr/>		<hr/>
Change in cash and cash equivalent in the year		541,817		246,152
		<hr/>		<hr/>
Cash and cash equivalent at the beginning of the year				
Cash in bank and deposit		1,870,449		1,624,351
Cash held in investments		54		-
		<hr/>		<hr/>
		1,870,503		1,624,351
		<hr/>		<hr/>
Cash and cash equivalent at the end of the year				
Cash in bank and deposit		2,412,290		1,870,449
Cash held in investments		30		54
		<hr/>		<hr/>
		2,412,320		1,870,503
		<hr/> <hr/>		<hr/> <hr/>

NOTES TO THE FINANCIAL STATEMENTS

For the year ended 31st July 2019

1. Accounting Policies

The accounting policies adopted by the Society are as detailed below:

a) Basis of accounting

The financial statements have been prepared in accordance with Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their accounts in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) (effective 1 January 2015) – (Charities SORP (FRS 102)), the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) and the Companies Act 2006.

The London Mathematical Society meets the definition of a public benefit entity under FRS 102. Assets and liabilities are initially recognised at historical cost or transaction value unless otherwise stated in the relevant accounting policy note(s).

The trustees have assessed whether the use of going concern basis is appropriate and have considered possible events or conditions that might cast significant doubt on the ability of the Society to continue as a going concern. The trustees have made this assessment for a period of at least one year from the date of approval of the financial statements. In particular the trustees have considered the Society's forecasts and projections and have taken account of pressures on membership subscription, publication and investment income. After making inquiries the trustees have considered that there is a reasonable expectation that the Society has adequate resources to continue in operational existence for the foreseeable future. The Society therefore continues to adopt the going concern basis in preparing its financial statements.

The financial statements are prepared in sterling, which is the functional currency of the company. Monetary amounts in these financial statements are rounded to the nearest pound.

An explanation and reconciliation of how the transition has affected the comparative balances is provided in the notes to the financial statements.

b) Judgements and key sources of estimation uncertainty

In the application of the Society's accounting policies, the trustees are required to make judgement, estimates and assumptions about the carrying amount of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from the estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised where the revision affects only that period, or in the period of the revision and future periods where the revision affects both current and future periods.

The most significant estimates and assumptions which affect the carrying amount of assets and liabilities in the accounts relate to:

- Useful Economic Lives- The annual depreciation charge for property, fixture, fittings and equipment is sensitive to change in the estimated useful economic lives and residual value of assets. These are reassessed annually and amended where necessary to reflect current circumstances.
- Defined benefit scheme pension liability- FRS 102 makes the distinction between a group plan and a multi-employer scheme. A group plan consists of a collection of entities under common control typically with a sponsoring employer. A multi-employer scheme is a scheme for entities not under common control and represents (typically) an industry-wide scheme such as Universities Superannuation Scheme (USS). The accounting for a multi-employer scheme where the employer has entered into an agreement with the scheme that determines how the employer will fund a deficit results in the recognition of a liability for the contributions payable that arise from the agreement (to the extent that they relate to the deficit) and the resulting expense in profit or loss in accordance with section 28 of FRS 102. The directors are satisfied that USS meets the definition of a multi-employer scheme and has therefore recognised the discounted fair value of the contractual contributions under the recovery plan in existence at the date of approving the financial statements.

c) Financial Instruments

The Society has elected to apply the provision of Section 11 'Basic Financial Instrument's and Section 12 'Other Financial Instruments Issues' of FRS 102 to all of its financial instruments. Financial Instruments are recognised in the Society's balance sheet when the Society becomes party to the contractual provisions of the instrument. Financial assets and liabilities are offset, with the net amounts presented in the financial statements, when there is a legally enforceable right to set off the recognised amounts and there is an intention to settle on a net basis or to realise the asset and settle the liability simultaneously.

With the exceptions of prepayments and deferred income all other debtor and creditor balances are considered to be basic financial instruments under FRS 102. (See notes 17 and 18 for details)

NOTES TO THE FINANCIAL STATEMENTS

For the year ended 31st July 2019

1. Accounting Policies (continued)

d) **Members' Subscriptions**

Subscription income from members is recognised in the year to which it relates. During the year new members are allowed to pay pro-rata subscription fees depending on when they are elected during the membership year.

e) **Donations**

Cash donations are credited to the General Fund in the year of receipt but donations in kind are not recognised in these financial statements.

f) **Fixed Assets**

Depreciation is provided on all tangible fixed assets at rates calculated to write off, on a straight-line basis, the cost less estimated residual value over their expected useful lives as follows:

Leasehold Property	Over 50 years
Fixtures, Fittings and Office Equipment	20%
Computer equipment	33.33%

The Society operates a policy of capitalising assets whose unit cost exceeds £1,000, with expenditure below this level written off as incurred.

g) **Investments**

The Society may invest up to 30% of its relevant assets in residential property, as valued at the time of purchase, with the remainder given over to the Society's investment managers. Investment in such residential property will be directly managed by the Society rather than by the investment managers. The percentage calculation excludes the value of De Morgan House, though this could be reviewed at any point. Also excluded are any investments made by the investment managers in the property area of asset classes.

• **Quoted investments**

All quoted investments are valued at their market value at the balance sheet date, giving rise to unrealised gains and losses which are included in the Statement of Financial Activities. The market value is determined as follows:

- i) Listed securities are valued at mid-market value ruling at the balance sheet date;
- ii) Unit trust and managed fund investments are stated at the mid-point of the latest prices quoted by the investment managers immediately prior to the balance sheet date;
- iii) Investments held in foreign currencies have been valued on the relevant basis and translated into sterling at the rate ruling at the balance sheet date.

The portfolio is invested in a range of equity, cash and fixed-interest investments in both UK and overseas markets. The key objective of the Society's portfolio is to produce a real return (capital growth) of at least 4% pa, and to provide an investment income determined by 'total return policy' of 3.5% pa (based on Yale model).

The Society in its total returns policy treats all cash withdrawals from the investment portfolio as investment income. This is analysed in the notes to the financial statements as investment income split between the various categories of investment based on information provided by the investment managers and the proportion of total return drawn down relating to gains. The balance of unrealised gains and losses on revaluation of investments, and realised gains and losses arising on disposal of investments are separately identified in the notes to the Financial Statements and on the SoFA.

• **Residential property investment**

As a safeguard against possible poor performance of the stock exchange, the Society expanded its investments portfolio to include residential property and owns three long lease residential properties in the Central London area, all of which are rented out. The rental derived is shown on the SoFA under 'Investment Income'. The growth in the value of the Society's residential property investment will be shown in the SoFA as *Gains on investment assets*. The primary long-term target of the Society's residential property is to produce a yield of 4% pa and to increase in capital value by at least the rate of inflation.

NOTES TO THE FINANCIAL STATEMENTS

For the year ended 31st July 2019

1. Accounting Policies (continued)

h) Publications

- i) Publications income from LMS journals is recorded based on an estimated accrued basis; other publications income is treated on a cash basis which is considered to be the most appropriate and prudent approach given the information available.
- ii) Income from the Society's contracts with publishers for the production, distribution and sales of its journals is determined as the best estimate for that proportion of the income (i.e. subscriptions less costs of production, distribution, sales and commission) relating to the number of issues published before the Balance Sheet date.
- iii) No account has been taken of costs incurred or sales proceeds received in respect of publication after the Balance Sheet date.
- iv) No valuation for accounting purposes is taken of any stocks of publications unsold at the Balance Sheet date.
- v) The cost of publishing rights and subscribers' lists are written off in the year of acquisition.
- vi) Royalties are taken into the Statement of Financial Activities as declared due by the relevant publishers.

i) Joint Ventures

The results of joint ventures are included in the accounts up to the year- end indicated.

j) Grants and Contracts

The Society has been awarded contracts and grants for some of its activities. These comprise: a contribution from IMU to support mentoring activities for mathematicians in Africa; shared costs of some activities with sister societies. The income and expenditure relating these are handled through this Fund.

k) Recognition of grant liabilities

Where the Society has contractual or constructive obligations to make grant payments these amounts are accrued in the accounts in accordance with the requirements of the SORP. The liability will be recognised within the year the grant is awarded. The unpaid grant commitments should normally be claimed by the end of the following financial year. However, the claim period may need to be extended for a further year (award year + 2) if the grant cannot be claimed by the end of the year following the award due to constraints on the start or end date of a grant, or due to other circumstances outside the control of the Society.

The Society also awards some grants with conditions for payment being a specific level of service or specific output to be delivered. Such grant awards (commitments) will be reserved in the Designated funds, and the grants are only recognised in the SoFA once the recipient of the grant has provided evidence of the specific service or output. Such grants are therefore reviewed annually and the grant payments subject to the condition of a progress report with satisfactory performance. If the project spans a number of years and satisfactory progress reports are received after year one, the first stage of the grant will be released from the Designated fund and that part of the grant expenditure will be recognised in the SoFA at that point.

Grants unclaimed by the end of award year +2 will be released back to the Society's general funds.

l) Grants payable

Grants payable out of existing revenues are provided for in full in the accounts. Those payable out of future resources are held in the Grant payable Reserve Fund (see also note 1(j) (iii)).

m) Taxation

The Society is a registered charity and no liability to taxation arises on the results of its business activities in support of its charitable purposes.

The Society has partial exempt status in respect of VAT, based on the split of its business and non-business activities. The proportion of VAT that cannot be recovered because of partial or fully exempt status of the activity is redistributed to the activities. The basis on which irrecoverable VAT have been allocated to the activities are set out in note 12.

n) Foreign currencies

Monetary assets and liabilities denominated in foreign currencies are translated at the rate of exchange ruling at the Balance Sheet date. Transactions in foreign currencies are recorded at the rate ruling at the date of the transaction. All differences are taken to the Statement of Financial Activities.

o) Medals in stock

The medal stock for the prize is stated at the lower of cost and net realisable value.

NOTES TO THE FINANCIAL STATEMENTS
For the year ended 31st July 2019

1. Accounting Policies (continued)

p) Pension costs

The institution participates in Universities Superannuation Scheme. The scheme is a hybrid pension scheme, providing defined benefits (for all members), as well as defined contribution benefits. The assets of the scheme are held in a separate trustee-administered fund. Because of the mutual nature of the scheme, the assets are not attributed to individual institutions and a scheme-wide contribution rate is set. The institution is therefore exposed to actuarial risks associated with other institutions' employees and is unable to identify its share of the underlying assets and liabilities of the scheme on a consistent and reasonable basis. As required by Section 28 of FRS 102 "Employee benefits", the institution therefore accounts for the scheme as if it were a wholly defined contribution scheme. As a result, the amount charged to the profit and loss account represents the contributions payable to the scheme. Since the institution has entered into an agreement (the Recovery Plan) that determines how each employer within the scheme will fund the overall deficit, the institution recognises a liability for the contributions payable that arise from the agreement (to the extent that they relate to the deficit) and therefore an expense is recognised.

The total movement to the profit & loss account is a gain of £11,072 (2018: gain of £3,117) as shown in note 18.

The latest available complete actuarial valuation of the Retirement Income Builder section of the Scheme is at 31 March 2017 (the valuation date), which was carried out using the projected unit method. The valuation as at 31 March 2018 is underway but not yet completed.

Since the institution cannot identify its share of USS Retirement Income Builder assets and liabilities, the following disclosures reflect those relevant for those assets and liabilities as a whole.

The 2017 valuation was the fourth valuation for scheme under the scheme-specific funding regime introduced by the Pensions Act 2004, which requires schemes to adopt a statutory funding objective, which is to have sufficient and appropriate assets to cover their technical provisions. At the valuation date, the value of the assets of the Scheme was £60.0 billion and the value of the scheme's technical provisions was £67.5 billion indicating a shortfall of £7.5 billion and funding ratio of 89%.

The key financial assumptions used in 2017 valuation are described below:

Pension increase (CPI)	Term dependent rates in line with the difference between the Fixed Interest and Index Linked yield curves, less 1.3% p.a.
Discount rate (forward rates)	<ul style="list-style-type: none"> • Years 1-10: CPI - 0.53% reducing linearly to CPI - 1.32% • Years 11-20: CPI + 2.56% reducing linearly to CPI + 1.7% by year 21 • Years 21+ : CPI+ 1.7%

The main demographic assumption used relates to the mortality assumptions. These assumptions are based on analysis of the scheme's experience carried out as part of the 2017 actuarial valuation. The mortality assumptions used in these figures are as follows:

	2017 valuation
Mortality base table	<p><u>Pre-retirement:</u></p> <ul style="list-style-type: none"> • 71% of AMC00 (duration 0) for males • 112% of AFC00 (duration 0) for females <p><u>Post retirement:</u></p> <ul style="list-style-type: none"> • 96.5% of SAPS S1NMA "light" for males • 101.3% of RFV00 for females.
Future improvements to mortality	CMI_2016 with a smoothing parameter of 8.5 and a long-term improvement rate of 1.8% pa for males and 1.6% pa for females.

The current life expectancies on retirement at age 65 are:

	2019	2018
Males currently aged 65 (years)	24.6	24.5
Females currently aged 65 (years)	26.1	26.0
Males currently aged 45 (years)	26.6	26.5
Females currently aged 45 (years)	27.9	27.8

A new deficit recovery plan was put in place as part of the 2017 valuation, which requires payment of 5% of salaries over the period 1 April 2020 to 30 June 2034. The 2019 pension liability provision reflects this plan. The provision figures have been produced using the following assumptions as at 31 March 2018 and 2019:

	2019	2018
Discount rate	2.44%	2.64%
Pension Increases (CPI)	2.11%	2.02%

NOTES TO THE FINANCIAL STATEMENTS
For the year ended 31st July 2019

1. Accounting Policies (continued)

a) General Fund

The Unrestricted reserves are analysed between the General Fund and other Designated Funds. The General Fund, detailed in note 20 to the financial statements, is to provide for the general operation of the Society including its charitable activities not funded from Designated or Restricted Funds. Within the Society's reserves the General Fund is deemed an expendable reserve to be used in pursuit of the Society's objectives as Council may from time to time determine. At present it is managed to provide the income to be used to ensure the availability of resources for its grant schemes and other continuing charitable activities in future years.

r) Designated Funds

The Unrestricted reserves are analysed between general and designated funds. The Trustees have created the following designated funds:

(i) Building & Development Reserve Fund

This reserve is to meet the costs of (a) consequences of the temporary loss of De Morgan House, (b) periodic internal and external decoration and maintenance, (c) major modifications, developments or repairs.

(ii) Publication Reserve Fund

This reserve is to meet the costs of (a) breaches of copyright or libel actions against the Society, (b) special strategic and commercial initiatives (c) exploration and start-up costs of new ventures (d) consequential costs should the Society to cease publishing, (e) unpredictable annual fluctuations in the surplus.

(iii) Grants Payable Reserve Fund

This fund has been established to cover grants awarded and approved by Council to be paid in future accounting periods, subject to available finance and satisfactory report.

(iv) Special Activities Reserve Fund

This fund contains gifts and bequests received by the Society to be used for diverse activities in support of the Society's objectives.

(v) Undergraduate Research Bursaries (Harding) Reserve Fund

This fund is set aside for grant awards to undergraduates with research potential. The fund has been set up for 3 years from 2016/17 financial year.

(vi) Compositio Fund

This fund holds the transaction relating to, and any year-end excess of income over expenditure, relating to the Society's joint venture with the Foundation Compositio to produce the journal Compositio.

s) Restricted Funds

The income of these restricted funds is to be used for the following purposes:

i) The Berwick Prize Fund

To support the Annual prize for mathematical work published by the Society

(ii) De Morgan Medal Fund augmented by the Sir Joseph Larmor Prize Fund

To support the award of the De Morgan Medal and the Larmor Prize, awarded every three years.

(iii) Lord Rayleigh's Fund

To support the general activities of the Society.

(iv) J. H. C. Whitehead Prize Fund

To support the cost of the Annual prizes awarded for lecturing and mathematical work.

(v) Fröhlich Fund

To support the cost of the Annual prizes awarded for lecturing and mathematical work.

(vi) Shephards Prize Fund

To support mathematics with a strong intuitive component which can be explained to those who have little or no knowledge of university mathematics.

(vii) A. J. Cunningham Research Fund

To support the cost of publication of work on the factorisation of large numbers.

(viii) Zeeman Fund

To support the cost of Undergraduate Research Bursaries named in honour of Professor Sir Christopher Zeeman.

NOTES TO THE FINANCIAL STATEMENTS
For the year ended 31st July 2019

1. Accounting Policies (continued)

t) Support and governance costs

Support costs are those functions that assist the work of the charity but do not directly undertake charitable activities. Support costs include back office costs, finance, personnel, payroll and governance costs which support the Society's Mathematical Sciences programmes and activities. The Governance costs include external audit, legal advice and the costs of trustee and committee meetings, as well as costs associated with constitutional and statutory requirements. Support and governance costs have been allocated between the costs of raising funds and charitable activities. The bases on which support and governance costs have been allocated to activities are set out in note 12.

u) Employee benefits

Termination benefits are recognised immediately as an expense when the Society is demonstrably committed to terminate the employment of an employee through, for example, redundancy, or to provide termination benefits.

2. Investment Income

2019	Unrestricted	Designated	Restricted	Total 2019
	£	£	£	£
a) Investment income receivable:				
Total returns/ Unit Trust Distribution <i>(Bond interest, Equities dividends, etc.)</i>	438,626	-	7,536	446,162
Re-invested total returns	(63,582)	-	-	(63,582)
Net investment income receivable	375,044	-	7,536	382,580
b) Residential property rental income	126,032	-	-	126,032
c) Interest receivable (Treasury Reserve and Bank deposits)	10,005	97	187	10,289
Total investment income 2019	511,081	97	7,723	518,901
2018	Unrestricted	Designated	Restricted	Total 2018
	£	£	£	£
a) Investment income receivable:				
Total returns/ Unit Trust Distribution <i>(Bond interest, Equities dividends, etc.)</i>	423,931	-	7,183	431,114
Re-invested total returns	(56,650)	-	-	(56,650)
Net investment income receivable	367,281	-	7,183	374,464
b) Residential property rental income	107,322	-	-	107,322
c) Interest receivable: (Treasury Reserve and Bank deposits)	3,837	84	162	4,083
Total investment income 2018	478,440	84	7,345	485,869

NOTES TO THE FINANCIAL STATEMENTS
For the year ended 31st July 2019

3. Income from other trading activities

	2019	2018
	£	£
a) DMH Conference facilities	246,294	225,430
b) DMH Rental income	114,031	101,427
c) Advertising in Newsletter	4,932	6,150
Total	365,257	333,007

4. Costs of raising funds

	2019		2018	
	£	£	£	£
a) Conference facilities				
General expenditure	33,734		33,811	
Apportioned support and governance costs	112,361		118,915	
		146,095		152,726
b) Service for tenants		62,821		62,405
c) Investment Management fees		55,135		55,766
d) Residential Investment Property costs		45,476		46,603
Total		309,527		317,500

5. Charitable activities: Advancing the interests of Mathematics

	2019		2018	
	£	£	£	£
Members' services:				
<i>LMS Newsletter</i>	21,878		23,719	
Other costs	9,783		8,978	
Unrecoverable subscriptions	1,999		1,239	
		33,660		33,936
Activities to support Women in Mathematics		2,367		28,002
Activities to support Maths -Computer Sciences		3,237		897
Library, binding and archives		6,077		14,221
EMS, IMU, ICIAM subscriptions & ICM costs		57,134		13,927
Prizes		20,540		18,714
Apportioned support and governance costs (note 12)		236,878		246,403
Total		359,893		356,100

NOTES TO THE FINANCIAL STATEMENTS
For the year ended 31st July 2019

6. Charitable activities: Enabling Mathematicians to undertake research and collaboration

	2019		2018	
	£	£	£	£
Grant Schemes				
Research Grants (Schemes 1 – 5)	345,692		355,823	
Research Workshop Grants	15,314		7,000	
Support for Mathematics in Africa	8,240		5,943	
Early Career Support (Schemes 8 and 9/ECR travel grants)	53,531		52,946	
Prospects in Mathematics	7,000		7,000	
Summer School Grants	31,000		33,500	
Early Career Fellowship Grants	68,100		-	
Computer Science Grants	7,330		3,692	
Teachers CPD Grants	8,313		9,999	
Small Educational Grants	15,989		5,884	
Women in Mathematics Event Grants	6,852		7,000	
Childcare and related Grants	993		1,299	
ECM/ICM travel Grants	-		11,345	
	568,354		501,431	
Less: cancellation and refunds	(82,800)		(63,492)	
		485,554		437,939
INI/ICMS/ACME Grants (Designated)		80,000		51,000
Undergraduate Bursaries (Designated)		27,210		31,810
Ad hoc Grants to Mathematical Bodies (UK & International)		22,611		11,001
Charitable giving of LMS rooms		37,765		39,640
Training (Research School)		41,723		49,562
Apportioned support and governance costs (note 12)		214,981		223,008
Total		909,844		843,960

ANALYSIS OF GRANT AWARDS

	2019	2018
	£	£
a) Grants: contractual commitments		
University of Cambridge (INI grant)	45,000	35,000
Heriot- Watt University (ICMS grant)	21,000	16,000
Royal Society (ACME grant)	7,000	-
Royal Statistic Society (ACME grant)	7,000	-
University of Glasgow (Summer School grant)	-	33,500
University of Leeds (Summer School grant)	31,000	-
	111,000	84,500
b) Other grant awards to institutions *	507,307	481,882
c) Other grant awards to individuals	79,868	28,860
Total grant awards	698,175	595,242

* Grant awards to each institution can be up to a maximum of £30k

GRANT REFUNDS AND CANCELLATION

	2019	2018
	£	£
Grant refunds	50,058	37,116
Grants not taken up (out of date)	32,742	26,376
Total grant refunds and cancellation	(82,800)	(63,492)

MOVEMENT IN OBLIGATION GRANT COMMITMENTS

	2019	2018
	£	£
Grant recognised at the start of the year	205,943	235,253
New grants charged to the SoFA in year	698,175	595,242
Grants paid during the year	(632,387)	(598,176)
Grants not taken up ('out of date')	(32,742)	(26,376)
Amount of grant recognised at the end of the year	238,989	205,943

NOTES TO THE FINANCIAL STATEMENTS

For the year ended 31st July 2019

7. Charitable activities: Disseminating Mathematical Knowledge - Publications

	2019	2018
	£	£
a) Net Income from LMS journals	1,500,850	1,405,825
b) Direct costs of Publications		
<i>Journal of Computation and Mathematics</i>	(500)	(1,863)
Other Operational Costs	(25,902)	(33,088)
	(26,402)	(34,951)
Net LMS periodicals surplus before Support and governance costs	1,474,448	1,370,874
Apportioned support and governance costs (note 12)	(344,405)	(319,846)
Net LMS periodicals surplus after Support and governance costs	1,130,043	1,051,028
c) Ventures & Royalties (net income)		
<i>Nonlinearity</i>	146,980	150,407
Russian journals (Turpion/RAS/LMS joint venture)	61,190	48,929
TMMS (AMS/LMS joint venture)	13,500	16,327
LMS Books and Royalties	17,104	17,584
	238,774	233,247
<i>Compositio</i>		
Profit share & Management fee (see 7d)	104,425	107,550
Costs of <i>Compositio</i> (LMS - only)	-	(236)
	104,425	107,314
<i>Mathematika</i>	26,376	28,206
NET PUBLICATIONS SURPLUS	1,499,618	1,419,795

The Society was involved in the following publishing ventures in the year:

- (I) ***Nonlinearity*** – the journal co-owned with the IOP Publishing Ltd and is produced at the IOP Publishing Ltd, Temple Circus, Temple Way, Bristol BS1 6HG
- (II) The three translation journals ***Russian Mathematical Surveys, Sbornik: Mathematics and Izvestiya: Mathematics*** are owned and managed jointly by the Department of Mathematics Russian Academy of Sciences, Turpion Ltd and the LMS. The main business address is Turpion Ltd, c/o IOP Publishing Ltd, Temple Circus, Temple Way, Bristol BS1 6HG.
- (IV) The journal ***Transactions of the Moscow Mathematical Society (TMMS)*** is managed on a day-to-day basis at the American Mathematical Society, 201 Charles Street, Providence, RI 02904 - 2294, USA.
- (V) ***Compositio Mathematica*** – the journal is wholly owned by Foundation Compositio Mathematica & managed by the LMS.
- (VI) ***Mathematika*** – the journal is wholly owned by UCL and managed by the LMS.

d) *Compositio* management account

	2019	2018
	£	£
Income	303,014	312,579
Expenditure		
Direct costs	(45,932)	(45,081)
Profit share to <i>Compositio</i> Foundation	(152,657)	(159,948)
	(198,589)	(205,029)
Net <i>Compositio</i> surplus before LMS fees and Profit share	104,425	107,550
Management fee to LMS	(39,000)	(39,000)
Profit share to LMS	(65,425)	(68,550)
Balance C/fwd on <i>Compositio</i> Fund	-	-

NOTES TO THE FINANCIAL STATEMENTS

For the year ended 31st July 2019

8. Charitable activities: Disseminating Mathematical Knowledge – Conference and meeting programmes

	2019		2018	
	£	£	£	£
Society meetings and regional workshops	27,502		38,260	
Hardy Lecturer	-		6,551	
Mary Cartwright Lecture	975		4,291	
Forder/Aitken Lecturer	6,134		3,347	
Invited Lectures	5,681		7,619	
		40,292		60,068
Apportioned support and governance costs (note 12)		118,184		114,833
Total		158,476		174,901

9. Charitable activities: Promoting Mathematical Research & its benefits

	2018		2018	
	£	£	£	£
Policy				
CMS	26,012		16,455	
Communication and External Relations	31,163		33,104	
Annual dinner	4,413		4,109	
Subscriptions to UK organisations	2,085		2,030	
Research Policy Activities	8,765		1,051	
		72,438		56,749
Education and young people, public engagement				
Holgate Lecturers	2,700		3,150	
Popular Lectures	10,770		11,571	
Other educational activities	3,386		4,801	
		16,856		19,522
Promoting Women in Mathematics activities		93		107
Apportioned support and governance costs (note 12)		300,022		302,518
Total		389,409		378,896

NOTES TO THE FINANCIAL STATEMENTS
For the year ended 31st July 2019

10. Governance and other committees' costs

	2019		2018	
	£	£	£	£
Professional services				
Solicitors fees	7,835		7,496	
Audit fees	11,500		10,500	
Audit over/under - accrual	1,750		1,995	
Accountancy fees	4,079		-	
Other professional fees	35		35	
	<hr/>		<hr/>	
		25,199		20,026
Costs of meetings (<i>Catering/Accommodation/Travel/Subsistence</i>)				
Governance (Council/F&GPC/Nomination, etc.)	22,958		27,363	
Retreat	9,644		-	
Other Committees	24,635		22,894	
	<hr/>		<hr/>	
		57,237		50,257
Election of Trustees		4,002		4,328
General office and staff costs (<i>apportioned</i>) (note 11)		214,443		222,790
Total		<hr/> 300,881 <hr/>		<hr/> 297,401 <hr/>

11. Analysis of general support and governance costs

2019	Governance and Committee related	Other general support	Total 2019
	£	£	£
Staff costs	159,172	874,743	1,033,915
Office and Premises costs	24,794	94,269	119,063
IT costs	12,842	72,590	85,432
Depreciation	12,930	41,214	54,144
Irrecoverable VAT	4,705	12,556	17,261
Professional services	25,199	-	25,199
Costs of meetings	57,237	-	57,237
Elections of Trustees	4,002	-	4,002
Total 2019	<hr/> 300,881 <hr/>	<hr/> 1,095,372 <hr/>	<hr/> 1,396,253 <hr/>
2018	Governance and Committee related	Other general support	Total 2018
	£	£	£
Staff costs	150,080	829,317	979,397
Office and Premises costs	40,494	134,427	174,921
IT costs	12,877	77,808	90,685
Depreciation	13,936	41,148	55,084
Irrecoverable VAT	5,403	15,359	20,762
Professional services	20,026	-	20,026
Costs of meetings	50,257	-	50,257
Elections of Trustees	4,328	-	4,328
Total 2018	<hr/> 297,401 <hr/>	<hr/> 1,098,059 <hr/>	<hr/> 1,395,460 <hr/>

NOTES TO THE FINANCIAL STATEMENTS
For the year ended 31st July 2019

12. Allocation of support and governance costs by activity

2019	Direct Staff	General Office	General Management and Finance	Governance and Committee	Total 2019
	£	£	£	£	£
Raising funds					
Conference facilities (DMH)	47,378	55,487	9,039	457	112,361
Services for tenants (DMH)	7,366	47,928	1,160	457	56,911
Managing Residential Property	8,941	1,991	1,122	457	12,511
Total support costs for raising funds	63,685	105,406	11,321	1,371	181,783
Charitable activities					
• Advancing the interest of Mathematics	83,392	37,990	55,594	59,902	236,878
• Enabling Mathematicians to undertake research and collaboration	77,911	28,670	48,498	59,902	214,981
• Disseminating Mathematical Knowledge – Publications	178,027	52,681	53,795	59,902	344,405
• Disseminating Mathematical Knowledge – Conference and meeting programmes	24,473	7,926	25,883	59,902	118,184
• Promoting Mathematics research and its benefits	146,207	41,334	52,579	59,902	300,022
Total support costs for Charitable activities	510,010	168,601	236,349	299,510	1,214,470
Total 2019	573,695	274,007	247,670	300,881	1,396,253
2018	Direct Staff	General Office	General Management and Finance	Governance and Committee	Total 2018
	£	£	£	£	£
Raising funds					
Conference facilities (DMH)	47,390	60,747	10,345	433	118,915
Services for tenants (DMH)	7,386	46,119	1,775	434	55,714
Managing Residential Property	9,162	2,058	2,569	434	14,223
Total support costs for raising funds	63,938	108,924	14,689	1,301	188,852
Charitable activities					
• Advancing the interest of Mathematics	88,814	43,720	54,649	59,220	246,403
• Enabling Mathematicians to undertake research and collaboration	80,370	32,686	50,732	59,220	223,008
• Disseminating Mathematical Knowledge – Publications	156,583	50,039	54,004	59,220	319,846
• Disseminating Mathematical Knowledge – Conference and meeting programmes	22,568	7,814	25,231	59,220	114,833
• Promoting Mathematics research and its benefits	147,448	44,985	50,865	59,220	302,518
Total support costs for Charitable activities	495,783	179,244	235,481	296,100	1,206,608
Total 2018	559,721	288,168	250,170	297,401	1,395,460

Basis of apportionment

Support costs include (a) **Staff costs** (salaries, benefits, training, H&S, recruitment, etc. of staff directly attributable to each of the above Society's activities); (b) **General Office Costs** (rent, rates, services, cleaning, equipment, maintenance, telephones, postage, equipment, stationery, etc., depreciation and Irrecoverable VAT, and IT costs such as computer hardware and software, network, internet access, websites, software development, etc.), (c) **General management and finance** (cost of services that cannot be directly attributed to an activity, i.e. general accounting and financial controls, HR and Executive Secretary's general management, etc.) (d) **Governance costs** (costs of meetings, trustees' expenses, and costs associated with constitutional and statutory requirements).

The costs of these are attributed across all the activities of the Society in proportion to (a) salary or f.t.e., (b) space occupied in De Morgan House, and (c) f.t.e. respectively, based on a time analysis undertaken by all staff.

NOTES TO THE FINANCIAL STATEMENTS
For the year ended 31st July 2019

12. Allocation of support and governance costs by activity (continued)

Support and governance costs have been allocated between the costs of raising funds and charitable activities as:

- **Direct staff costs** = staff time directly attributable to each of the above Society's activities in proportion to the salary or pro rata to staff f.t.e. on a time analysis undertaken by all staff.
- **General Office costs** = (a) apportioned Building, Office and IT costs of staff who are directly attributable to (deal with) each of the above Society's activities as per staff time analysis and in proportion of the office space occupied, and (b) indirect costs, which are re-apportioned staff costs for those dealing with Building, Office and IT management.
- **General management and finance** = the costs of services that cannot be directly attributed to an activity (i.e. general accounting and financial controls, HR and Executive Secretary's general management, etc.) are attributed to each area of activity on the same basis as the original elements (i.e. staff time and space occupied, IT and office use etc.) , which includes re-apportioned costs of the office space occupied, the IT costs and other general office costs in dealing with HR, finance and general management.
- **Governance and committee costs** = apportionment made on the basis of (a) salary or pro rata to staff F.T.E. on a time analysis undertaken by all staff (b) meetings and staff office space occupied in De Morgan House in relation to governance and committee functions, and (c) Invoices and claims for catering, accommodation, travel and subsistence regarding governance and committee meetings, as well as costs of professional services (i.e. external audit, legal advice, etc.).

The Society has partial exempt status in respect of VAT, based on the split of its business and non-business activities. The proportion of VAT that cannot be recovered because of partial or fully exempt status of the activity is redistributed to the activities on the same basis as the original elements (i.e. staff time and space occupied, IT and office use etc.), under General Office costs.

Support costs for each area of the above activities can be higher or lower than last year due to staff time allocation. This changes from year to year and will have an effect on direct staff costs, general office costs, general management costs and governance costs.

13. Employment Costs	2019	2018
	£	£
Total employment costs of all staff including taxable benefits for the year comprise:		
Salaries and Wages	774,204	743,839
Employer's National Insurance Contributions	86,584	82,494
Employer's Pension Contributions	127,715	128,280
Total	988,503	954,613

* This represents the costs of organisational restructuring.

The total employment costs (Salaries/NIC /Pension) for the Executive Management Team amounted to £404,205 (2018: £393,407). This team is considered to Key Management Personnel and consists of Executive Secretary, Head of Finance, Head of Society Business, Head of Conference and Building.

The number of employees earning £60,000 per annum or more was:

	2019	2018
	No.	No.
£60,000 - £70,000	2	2
£110,000 - £120,000	1	1

The pension payments for the above members of staff amounted to £46,681 (2018: £43,988). These contributions were paid into a defined benefits pension scheme.

The average number of employees over the year (and full time equivalent) was:

	2018/2019		2017/2018	
	Total	FTE	Total	FTE
Management and administration	15.0	12.8	14.2	12.7
Publishing and editorial	3.0	2.8	3.0	2.5
Total	18.0	15.6	17.2	15.2

NOTES TO THE FINANCIAL STATEMENTS
For the year ended 31st July 2019

14. Fixed Asset Investments

	£	2019 £	£	2018 £
a) Quoted investments				
	<i>Investment Assets in the UK</i>	<i>Investment Assets outside the UK</i>	<i>Total</i>	<i>Total</i>
Total Market value at 31st July 2019	4,901,214	6,496,957	11,398,171	11,324,053

In the prior year, £6,228,229 of investment assets were in the UK with the remaining £5,059,824 being outside the UK.

Reconciliation of opening and closing market values:

Market value at 1 st August 2018	11,324,053	11,064,751
Additions at cost	63,605	56,596
Disposals proceeds	-	-
Realised & Unrealised gains (note 15a)	131,460	317,298
Movement in cash	(120,947)	(114,592)
Total Market value at 31st July 2019	11,398,171	11,324,053
Analysis by Fund:		
Restricted Funds	229,928	223,926
Unrestricted Funds	11,168,243	11,100,127

% value of portfolio

Details of material investments are as follows:

Schroder QEP Global Core Fund	15.0%
Vanguard S&P 500 ETF	9.7%
Charity Equity Value Fund	8.0%
Troy Trojan Income Fund	6.0%
Schroder Global Emerging Markets	5.2%

b) Residential Property

	2019 £	2018 £
Market value at 31st July 2019	3,266,950	3,409,900
Reconciliation of opening and closing market values:		
Market value at 1st August 2018	3,409,900	3,043,950
Additions at cost	-	365,950
Unrealised losses (note 15b)	(142,950)	-
Total Market value at 31st July 2019	3,266,950	3,409,900

Represents purchase of property for residential letting purposes to diversify the Society's investment portfolio. The rental derived is shown on the SoFA under 'Investment Income'.

NOTES TO THE FINANCIAL STATEMENTS
For the year ended 31st July 2019

15. Gains and losses on investment assets

2019	Unrestricted funds £	Restricted funds £	Total £
a. Quoted investments			
Realised gain on sale of investments	119,575	1,348	120,923
Unrealised gain in market value of investments	10,419	118	10,537
	<hr/>	<hr/>	<hr/>
Realised and Unrealised gain (Fixed Asset Investments: Note 14)	129,994	1,466	131,460
	<hr/>	<hr/>	<hr/>
b. Residential property investment			
Realised gain on sale of investments	-	-	-
Unrealised losses in market value of the Properties	(142,950)	-	(142,950)
	<hr/>	<hr/>	<hr/>
Realised and Unrealised losses (Fixed Asset Investments: Note 14)	(142,950)	-	(142,950)
	<hr/>	<hr/>	<hr/>
Total losses (gains)	(12,956)	1,466	(11,490)
	<hr/> <hr/>	<hr/> <hr/>	<hr/> <hr/>
2018	Unrestricted funds £	Restricted funds £	Total £
a. Quoted investments			
Realised gain on sale of investments	112,828	1,818	114,646
Unrealised gain in market value of investments	199,438	3,214	202,652
	<hr/>	<hr/>	<hr/>
Realised and Unrealised gain (Fixed Asset Investments: Note 14)	312,266	5,032	317,298
	<hr/>	<hr/>	<hr/>
b. Residential property investment			
Realised gain on sale of investments	-	-	-
Unrealised gain in market value of the Properties	-	-	-
	<hr/>	<hr/>	<hr/>
Realised and Unrealised gain (Fixed Asset Investments: Note 14)	-	-	-
	<hr/>	<hr/>	<hr/>
Total gains	312,266	5,032	317,298
	<hr/> <hr/>	<hr/> <hr/>	<hr/> <hr/>

NOTES TO THE FINANCIAL STATEMENTS
For the year ended 31st July 2019

16. Tangible Fixed Assets	Leasehold Property	Fixtures Fittings and Equipment	Total
	£	£	£
Cost			
Brought forward at 1st August 2018	2,175,353	145,657	2,321,010
Additions	-	2,375	2,375
Carried forward at 31st July 2019	2,175,353	148,032	2,323,385
Depreciation			
Brought forward at 1st August 2018	875,649	115,729	991,378
Charge for the year	44,817	9,326	54,143
Carried forward at 31st July 2019	920,466	125,055	1,045,521
Net book value			
At 31st July 2019	1,254,887	22,977	1,277,864
At 31st July 2018	1,299,704	29,928	1,329,632

• Part of the leasehold property is let out and the rental derived is shown on the SOFA under 'Activities for Generating Funds'.

17. Debtors	2019	2018
	£	£
Publications	61,189	51,528
Conference facilities	26,815	33,670
Other debtors	109,593	128,982
Gift-aid receivable	515	442
Prepayments and accrued interest	43,749	71,011
	241,861	285,633

18. Creditors and Deferred Income	2019	2018
	£	£
Creditors: amounts falling due within one year		
Accruals	35,689	56,023
Grant creditors	238,989	205,943
Taxation and other Social Security creditors	84,667	57,867
Other creditors	333,549	391,715
	692,894	711,548
Deferred income:		
Unexpired publications' subscriptions:		
Balance brought forward	167,375	2,196
Amount released in year	(167,375)	(2,196)
Income deferred to future years	120,262	167,375
Balance carried forward	120,262	167,375
Creditors: amounts falling due after more than one year		
Brought Forward Pension Provision	170,083	173,200
Movement	(11,072)	(3,117)
Carried Forward Pension Provision	159,011	170,083

NOTES TO THE FINANCIAL STATEMENTS
For the year ended 31st July 2019

19. Restricted Funds

2019	Balance at 1.08.18 £	Other & Investment Income £	Expenditure £	Investment gain £	Transfers £	Balance at 31.07.19 £
<u>Prize (Capital) funds</u>						
Berwick Fund	32,150	96	-	-	-	32,246
De Morgan Medal & Larmor Fund	30,316	91	-	-	-	30,407
<u>Prize (Income) funds</u>						
Berwick Fund	21,122	711	(1,500)	138	-	20,471
De Morgan Medal & Larmor Fund	46,730	1,573	(1,500)	306	-	47,109
Lord Rayleigh's Fund	17,982	605	-	118	-	18,705
J.H.C. Whitehead Fund	-	-	(10,500)	-	10,500	-
Fröhlich Fund	14,929	502	-	98	-	15,529
Shephards Fund	36,402	1,225	-	238	-	37,865
<u>Other funds</u>						
A.J. Cunningham Research Fund	86,761	2,920	-	568	-	90,249
Zeeman Fund	221	-	-	-	-	221
Total Funds	286,613	7,723	(13,500)	1,466	10,500	292,802

• The transfer of £10,500 from the General Fund to Restricted Funds is to cover a shortfall in income for the Whitehead prizes.

2018	Balance at 1.08.17 £	Other & Investment Income £	Expenditure £	Investment gain £	Transfers £	Balance at 31.07.18 £
<u>Prize (Capital) funds</u>						
Berwick Fund	32,066	84	-	-	-	32,150
De Morgan Medal & Larmor Fund	30,237	79	-	-	-	30,316
<u>Prize (Income) funds</u>						
Berwick Fund	21,404	716	(1,500)	502	-	21,122
De Morgan Medal & Larmor Fund	44,215	1,479	-	1,036	-	46,730
Lord Rayleigh's Fund	17,014	569	-	399	-	17,982
J.H.C. Whitehead Fund	-	-	(9,000)	-	9,000	-
Fröhlich Fund	15,545	520	(1,500)	364	-	14,929
Shephards Fund	34,443	1,152	-	807	-	36,402
<u>Other funds</u>						
A.J. Cunningham Research Fund	82,091	2,746	-	1,924	-	86,761
Zeeman Fund	221	-	-	-	-	221
Total Funds	277,236	7,345	(12,000)	5,032	9,000	286,613

• The transfer of £9,000 from the General Fund to Restricted Funds is to cover a shortfall in income for the Whitehead prizes.

NOTES TO THE FINANCIAL STATEMENTS
For the year ended 31st July 2019

20. Unrestricted Funds

2019	Balance at 01.08.18	Income	Expenditure	Gain/(loss) on investments	Actuarial gains (losses) on pension scheme	Transfer	Balance at 31.07.19
	£	£	£	£	£	£	£
General Fund: (see note 1(q))	13,285,017	2,838,914	(2,377,253)	(12,956)	11,072	(342,476)	13,402,318
Designated Funds:							
a) Building & Development Reserve Fund	541,144	-	-	-	-	58,856	600,000
b) Publication Reserve Fund	2,977,930	-	-	-	-	22,070	3,000,000
c) Grants Payable Reserve Fund	14,000	-	(80,000)	-	-	365,000	299,000
d) Special Activities Reserve Fund	32,283	97	-	-	-	-	32,380
e) Undergraduate Research Bursaries Fund	36,735	-	(27,210)	-	-	(9,525)	-
f) Compositio Fund	-	303,014	(198,589)	-	-	(104,425)	-
	<u>3,602,092</u>	<u>303,111</u>	<u>(305,799)</u>	<u>-</u>	<u>-</u>	<u>331,976</u>	<u>3,931,380</u>
	16,887,109	3,142,025	(2,683,052)	(12,956)	11,072	(10,500)	17,333,698

a) The transfer of £58,856 from the General Fund to Building Fund is to maintain the reserve at its original level

b) The transfer of £22,070 from the General Fund to Publication Fund is to maintain the reserve at its original level

c) The transfer of £365,000 from the General Fund to Grant Payable Fund is in respect of grants awarded with conditions for payment being a specific level of service or specific output to be delivered

e) The transfer of £9,525 from Undergraduate Research Bursaries to General Fund represents the completion of three years funding (i.e. the fund has been set up for three years starting from the 2016/17 financial year)

f) The transfer of £104,425 from the Compositio Fund to General Fund represents the management fee and the LMS's profit share relating to the journal.

2018	Balance at 01.08.17	Income	Expenditure	Gain/(loss) on investments	Actuarial gains (losses) on pension scheme	Transfer	Balance at 31.07.18
	£	£	£	£	£	£	£
General Fund: (see note 1(q))	12,450,252	2,671,493	(2,331,587)	£312,266	3,117	179,476	13,285,017
Designated Funds:							
a) Building & Development Reserve Fund	600,000	-	-	-	-	(58,856)	541,144
b) Printing & Publication Reserve Fund	3,000,000	-	-	-	-	(22,070)	2,977,930
c) Grants Payable Reserve Fund	65,000	-	(51,000)	-	-	-	14,000
d) Special Activities Reserve Fund	32,199	84	-	-	-	-	32,283
e) Undergraduate Research Bursaries Fund	68,545	-	(31,810)	-	-	-	36,735
f) Compositio Fund	-	312,579	(205,029)	-	-	(107,550)	-
	<u>3,765,744</u>	<u>312,663</u>	<u>(287,839)</u>	<u>-</u>	<u>-</u>	<u>(188,476)</u>	<u>3,602,092</u>
	16,215,996	2,984,156	(2,619,426)	312,266	3,117	(9,000)	16,887,109

a) The transfer of £58,856 from the Building Fund to General Fund is to cover the costs of external and internal refurbishment of the building

b) The transfer of £22,070 from the Publication Fund to General Fund is to cover the cost of strategic and commercial initiatives

f) The transfer of £107,550 from the Compositio Fund to General Fund represents the management fee and the LMS's profit share relating to the journal.

NOTES TO THE FINANCIAL STATEMENTS
For the year ended 31st July 2019

21. Analysis of net assets between funds

2019	Unrestricted funds		Restricted Funds	Total Funds
	General	Designated		
	£	£	£	£
Fund balances are represented by				
Tangible fixed assets	1,277,864	-	-	1,277,864
Investments	10,536,193	3,899,000	229,928	14,665,121
Current assets	2,560,428	32,380	62,874	2,655,682
Current liabilities	(813,156)	-	-	(813,156)
Long-term liabilities	(159,011)	-	-	(159,011)
Total net assets	13,402,318	3,931,380	292,802	17,626,500

2018	Unrestricted funds		Restricted Funds	Total Funds
	General	Designated		
	£	£	£	£
Fund balances are represented by				
Tangible fixed assets	1,329,632	-	-	1,329,632
Investments	10,976,953	3,533,074	223,926	14,733,953
Current assets	2,027,438	69,018	62,687	2,159,143
Current liabilities	(878,923)	-	-	(878,923)
Long-term liabilities	(170,083)	-	-	(170,083)
Total net assets	13,285,017	3,602,092	286,613	17,173,722

22. Grants and Contracts Management account

	2019		2018	
	£	£	£	£
IMA, RSS & EdMS contributions to the CMS				
Income	50,946		40,963	
Expenditure (including support costs)	(90,348)		(79,428)	
LMS's Contribution to the CMS		(39,402)		(38,465)

23. Transactions with Trustees and connected persons

Trustees receive reimbursement only for expenses actually incurred in attending meetings. No remuneration is paid to trustees except as disclosed below. The gross amount that has been reimbursed in respect of attendance of meetings in the period amounted to £22,071 for 20 Trustees (2018: £26,561 for 17 Trustees).

During the year £450 was paid to Dr A. Gardiner for delivering Holgate lectures. As this work falls outside of his duties as a trustee, a written agreement was produced between the Society and Dr Gardiner.

One of the Society's Trustees is a Trustee of another organisation, the IMA, which rent an office at a commercially negotiated rate.

As disclosed in the Trustees' Report, where grants are awarded to Trustees the payment is always made to the relevant institution.

NOTES TO THE FINANCIAL STATEMENTS
For the year ended 31st July 2019

24. Comparison figures of each fund (2017/18 financial statements)

	Notes	Unrestricted General Funds £	Designated Funds £	Restricted Funds £	2018 Total Funds £
Income and endowments:					
Donations and legacies		2,702	-	-	2,702
Income from charitable activities:					
Membership subscriptions		131,743	-	-	131,743
Publications – LMS Periodicals	7a	1,405,825	-	-	1,405,825
Publications – Ventures and Royalties	7c, d	261,460	312,579	-	574,039
Grants and contracts	22	53,046	-	-	53,046
Total income from charitable activities		1,852,074	312,579	-	2,164,653
Income from other trading activities	3	333,007	-	-	333,007
Income from Investments	2	478,440	84	7,345	485,869
Other income		5,270	-	-	5,270
Total Income		2,671,493	312,663	7,345	2,991,501
Expenditure:					
Costs of raising funds	4	317,500	-	-	317,500
Expenditure on charitable activities:					
Advancing the interests of mathematics	5	344,100	-	12,000	356,100
Enabling mathematicians to undertake research and collaboration	6	761,150	82,810	-	843,960
Disseminating mathematical knowledge:					
- Costs of publications	7b,c,d	355,040	205,029	-	560,069
- Conferences and meeting programmes	8	174,901	-	-	174,901
Promoting mathematical research and its benefits	9	378,896	-	-	378,896
Total expenditure on charitable activities		2,014,087	287,839	12,000	2,313,926
Total expenditure		2,331,587	287,839	12,000	2,631,426
Net income/(expenditure) before gains and losses on investment		339,906	24,824	(4,655)	360,075
Net gains on investment assets	15	312,266	-	5,032	317,298
Net Income /(expenditure) for the year		652,172	24,824	377	677,373
Transfers between funds	19,20	179,476	(188,476)	9,000	-
Actuarial losses on defined benefit pension schemes	18	3,117	-	-	3,117
Net movement in funds for the year		834,765	(163,652)	9,377	680,490
Reconciliation of funds:					
Total funds brought forward		12,450,252	3,765,744	277,236	16,493,232
Fund balances carried forward		13,285,017	3,602,092	286,613	17,173,722