

LMS 150th Anniversary

Mathematics Festival at the Science Museum, London

Science Museum, Exhibition Road, London SW7 2DD (nearest tube: South Kensington)

Wednesday 25 November 2015 (evening only; Science Museum Lates)

Saturday 28 - Sunday 29 November 2015 (daytime)

The LMS is collaborating with the Science Museum and interactive theatre company non zero one to create an exciting and immersive Mathematics Festival, entitled *What's Your Angle? Uncovering Maths*. Audiences of all ages will be invited to adopt the role of an undercover journalist to discover how mathematics relates to everyday life. The festival aims to be an inspiring and memorable experience that challenges the common perception of mathematics as difficult and esoteric, and to show visitors how contemporary mathematics transforms people's lives and affects everyone.

Einstein's Amazing Theory of Gravity: Black Holes and Novel Ideas in Cosmology

Talk by Roger Penrose: 25 November 2015, 7:10pm - 8:10pm



As an introduction to the festival and part of the 'Lates' event to be held on the evening of 25 November, Roger Penrose will be giving a talk on the subject of general relativity, in light of the 100th anniversary of Einstein's seminal paper "The Field Equations of Gravitation".

Abstract: One hundred years ago, Albert Einstein presented the definitive version of general relativity, his theory of gravity and curved space-time structure that would come to supersede Isaac Newton's picture, seemingly unassailable for more than two

centuries. Though initially greeted with much skepticism, Einstein's theory has grown in stature to become one of the most precisely tested of physical theories. Effects for which there is now considerable observational support include black holes, gravitational lensing, and energy-carrying gravitational waves.

Einstein later extended his theory to study the entire universe, introducing his cosmological constant—now referred to as "dark energy". Again, there is close accord with observation. Yet a feature of his models he much disliked was the initial singularity now referred to as

the "Big Bang". There is, however, a novel way of dealing with this apparent blemish that might have pleased Einstein, leading to an unorthodox picture that is well in accord with modern observations.

Thinking Space

Preview screening of a film directed and produced by Heidi Morstang:

25 November 2015, 8:30pm - 9:35pm

How do mathematicians think? This 60 minute documentary film features nine UK-based mathematicians offering insights into their mathematical thinking across a broad range of mathematical research fields.

Through explorations of their various thought processes, the film portrays mathematicians who are grappling with advanced mathematical ideas. We are presented with the concepts of imagination, intuition, and wonder, as well as rigorous mathematical deduction.

The film features Kevin Buzzard, Peter Donnelly, Tim Gowers, Martin Hairer, Roger Penrose, Caroline Series, Richard Thomas, Reidun Twarock and Karen Vogtmann. Interviews were conducted and selected by Martin Hyland.

These will be free ticketed events with limited capacity.

Tickets for Roger Penrose talk can be reserved here from 4pm on Monday 26 October: http://www.sciencemuseum.org.uk/visitmuseum/Plan_your_visit/lates/einsteins-amazing-theory-of-gravity

Tickets for the preview screening of *Thinking Space* can be reserved here from 4pm on Monday 26 October: http://www.sciencemuseum.org.uk/visitmuseum/Plan_your_visit/lates/thinking-space. The film will also be shown on a rolling basis over the festival weekend.

Correction to the October issue: we are very sorry to say that the LMS Associate Artist artwork will not be shown at the Maths Festival, contrary to what was reported in the last issue.

