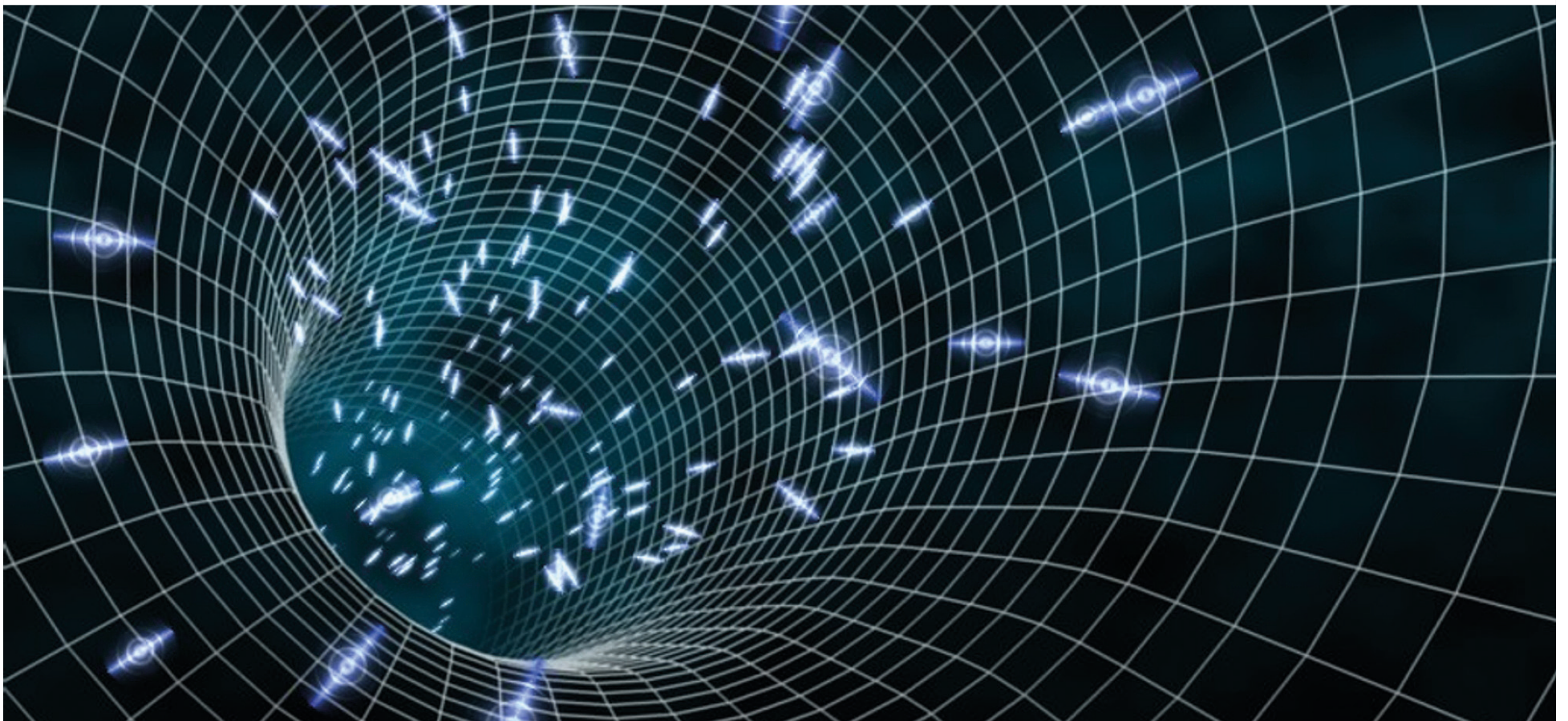


The End Of Spacetime

Higgs Centre Public Lecture

by Nima Arkani-Hamed

Wednesday 9 January • 7.30 P.M.



Professor Nima Arkani-Hamed, Institute for Advanced Study, Princeton, USA

Nima Arkani-Hamed is a theoretical physicist with interests in high-energy physics, string theory and cosmology. Arkani-Hamed is now on the faculty at the Institute for Advanced Study in Princeton, New Jersey, and director of The Center for Future High Energy Physics (CFHEP) in China, Beijing.

In July 2012, he was an inaugural awardee of the Fundamental Physics Prize, the creation of physicist and internet entrepreneur, Yuri Milner. He has previously won the Sackler Prize from Tel Aviv University in 2008, the Gribov Medal from the European Physical Society in 2003, and the INFN-Pisa Gamberini prize in 1997. He was awarded the Packard and Sloan Fellowship in 2000.

The End of Spacetime

Spacetime and quantum mechanics are the pillars of our modern understanding of fundamental physics. But there are storm clouds on the horizon indicating that these principles are approximate, and must be replaced with something deeper. The union of quantum mechanics and gravity strongly suggests that spacetime as a basic concept is doomed, and there are related indications of fundamental limitations to quantum mechanics in both the early and late universe.

Professor Arkani-Hamed will review these paradoxes and describe indications for a new picture where spacetime and quantum mechanics will be seen to emerge hand in hand from more primitive principles, making contact with new areas of mathematics. He will give concrete examples of how these ideas work in the context of scattering amplitudes, describing particle collision experiments of the sort performed at the Large Hadron Collider.

PLACE, DATE & TIME

PLACE: Gordon Aikman Lecture Theatre
32 George Square,
Edinburgh, EH8 9LD

DATE: Wednesday 9 January

DOORS OPEN: 7.00 P.M.

LECTURE: 7:30 - 8:30 P.M.

ADMISSION

TICKETS: £FREE

BOOKING: <https://end-of-spacetime.eventbrite.com>

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The Higgs Centre for Theoretical Physics,
The University of Edinburgh,
<https://higgs.ph.ed.ac.uk>



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