Physics and Astronomy

Southampton

From the Origins of Mass to the Stability of Matter: Lattice QCD and Supercomputers. A Talk by Professor Laurent Lellouch

1.3 Nel

Date of Event: 25 July 2016 | 7-8pm B58 Murray Building, Lecture Theatre Room 1067, Highfield Campus, University of Southampton 5017 1BJ

The origin of mass is mysterious. In our everyday experience, the mass of an object is the sum of the mass of its parts. However, in the world of subatomic particles such as quarks and gluons, this everyday assumption is no longer true and even very small mass differences can have cosmic consequences.

After an introduction to the subatomic world and the mechanisms by which mass emerges, I will describe how supercomputers are being used to compute from first principles the interactions between elementary particles in order to reveal the origins of mass and to explain the stability of the matter which constitutes us and the visible universe.



Professor Laurent Lellouch

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Please reserve a seat through Eventbrite: http://latticeqcd.eventbrite.co.uk or inform us that you will be attending.

For further information please contact pj@soton.ac.uk