

OKINAWA INSTITUTE OF SCIENCE AND TECHNOLOGY GRADUATE UNIVERSITY 沖縄科学技術大学院大学

## OIST SEMINAR Exploring the Subatomic Frontier with the Next Generation of High-energy Particle Colliders

## Tue, NOV. 5 10:30 to 11:30 Lab 3 C700

The discovery of the Higgs boson in 2012 seemingly completed our verification of the 'Standard Model' (SM) of elementary particles and fields. However the SM accounts for only about 4% of the energy content of the universe that is in the form of atomic matter: the remaining 96% comprises dark matter and dark energy, whose nature is unknown. The fate of the antimatter produced in the primordial Big Bang is also unknown. Moreover, the nature of the Higgs boson itself is open to question: is it the SM Higgs boson, a beyond-SM Higgs boson, or not even a true Higgs boson at all? Dr. Burrows will review the plans for next-generation subatomic particle colliders that have been proposed to shed light on some of these profound mysteries.

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## Prof. Philip Burrows

Professor Philip Burrows, Interim Director of the John Adams Institute for Accelerator Science, University of Oxford, Royal Holloway University of London and Imperial College London.

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