

BOSTON UNIVERSITY GEOMETRY AND PHYSICS SEMINAR

## THE CONFORMAL BOOTSTRAP AND QUANTUM FIELD THEORY

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October 24, 2018, 4:00 – 5:00pm  
Math/Computer Science, Room 148  
111 Cummington Street, Boston

Tea: 3:45pm in Room 144

**Abstract:** We give an introduction to some of the main ideas and techniques used in the Conformal Bootstrap approach to quantum field theory (QFT). We will describe the Conformal Bootstrap and Modular Bootstrap equations and how they can be used to constrain and sometimes solve Conformal Field Theories (CFTs), and discuss Hamiltonian truncation techniques and how they can be used to analyze the behavior of QFTs connected to a CFT by RG flow. We also describe how problems in quantum gravity can be reformulated as problems in CFT through the AdS/CFT correspondence.

See <http://math.bu.edu/research/geom/seminar.html> or contact Yoosik Kim [yoosik@bu.edu](mailto:yoosik@bu.edu) or Siu-Cheong Lau [lau@bu.edu](mailto:lau@bu.edu) for more information.