Contribution ID: **1** Type: **not specified**

Causal symmetry breaking: the EFT description of quantum chaos

Monday 16 November 2020 16:00 (1 hour)

Abstract:

Quantum chaotic systems are often defined via the assertion that their spectral statistics coincides with, or is well approximated by, random matrix theory. In this talk I will explain how the universal content of random matrix theory emerges as the consequence of a simple symmetry-breaking principle and its associated Goldstone modes. This approach gives a natural way to identify wormhole-like correlations, even for individual theories.
I will also discuss how to extend the Goldstone effective-field-theory approach to study operator correlation functions, and present some thoughts on how to understand causal symmetry breaking in holographic bulk gravity.

Presenter: SONNER, Julian