## International Workshop on: Simulating gravitation and cosmology in condensed matter and optical systems



Contribution ID: 63 Type: not specified

## Exploring nonequilibrium field theories with cold atoms and solid state systems

Tuesday 23 July 2019 11:15 (45 minutes)

Generation of entangled particle pairs underlies several important phenomena in non-equilibrium field theories including Hawking radiation and dynamical Casimir effect. I will discuss application of these ideas to understanding pump and probe experiments in condensed matter systems and ultracold atoms. Examples include superconducting Higgs amplifiers, phonon-polariton lasing, shaken one dimensional condensates, and dynamics of a BEC with local loss.

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