Contribution ID: **373** Type: **Oral Presentation**

Real time evolution of scalar fields in semiclassical gravity

Thursday, 11 August 2022 12:10 (20 minutes)

We report on the development of a lattice formalism for studying the realtime behaviour of radially symmetric configurations of massless scalar fields in radially symmetric, curved spacetimes in 3+1 dimensions.
It is intended to numerically study back reaction effects due to semiclassical gravity in the time evolution of scalar field configurations, especially for those that will eventually evolve into black holes.

Primary authors: HOELBLING, Christian; GUENTHER, Jana N. (University of Wuppertal); VARNHORST, Lukas (University of Wuppertal)

Presenter: VARNHORST, Lukas (University of Wuppertal)

Session Classification: Theoretical Developments

Track Classification: Theoretical Developments and Applications beyond Particle Physics