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Type: **Plenary talk**

QFT Dynamics from CFT Data

Thursday 5 September 2024 17:00 (30 minutes)

While quantum field theory has given us a successful description of physical phenomena at many different length scales, almost all computations are currently limited to systems which are weakly-coupled. I will present a new theoretical framework for solving general strongly-interacting physical systems, which uses universal short-distance CFT data to numerically compute long-distance QFT observables. After presenting a general framework which can be applied to quantum field theories in any number of dimensions, I will then discuss its application to multiple strongly-coupled systems, focusing in particular on recent results studying non-equilibrium dynamics at finite temperature and nonperturbative scattering.

Link to publication (if applicable)

Presenter: WALTERS, Matthew (Heriot-Watt University)

Session Classification: Plenary session