# Institut Henri Poincaré

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## String Theory in Greater Paris

**Rencontres Théoriciennes**

**"Supergravité, théorie des cordes et théorie M"**

*Jeudi 26 Mars 2020, 11:00*

# Matthew Walters

*CERN*

## QFT from CFT

*Quantum field theories describe RG flows between fixed points." This slogan provides a very useful qualitative picture, but we would like to make this statement more concrete and (ideally) more useful quantitatively. I will discuss a new proposed method for realizing this goal, which uses data from UV fixed points (i.e. CFTs) to numerically compute dynamical observables in more general strongly-coupled QFTs. This approach uses low-dimension operators from the UV CFT to approximate the low-energy eigenstates of the full QFT Hamiltonian, allowing us to study dynamics even at strong coupling. After presenting a general framework which can be applied to QFTs in any number of dimensions, I will then discuss its application to a particular 2D example where we can compare with known qualitative results, as well as recent ideas for applying this framework in higher dimensions and to gauge theories, including QCD.*

**Institut Henri Poincaré, salle 314, 3ème étage**

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