



Department of
Theoretical Physics

THE QUANTUM SPACETIME SEMINAR SERIES

Lessons from holography for open quantum systems

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Venue: A-304

Zoom link shall be shared separately



We describe general lessons one can glean about the effective dynamics of open quantum systems using holography. Specifically, we will argue that using holographic CFTs to provide thermal environments is a useful way to extract the broad physical principles. This turns out to be especially useful when the probe system has long-lived gapless modes of the environment. To illustrate the ideas, we motivate a simple class of toy models that captures all the essential physics. As a corollary we also explain analytic properties of real-time thermal correlation functions.