

## NEW PERSPECTIVES IN CONFORMAL FIELD THEORY AND GRAVITY

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## The Virasoro Minimal String

*Tuesday 26 September 2023 14:00 (40 minutes)*

The last years have provided us with a number of toy models, where holography can be completely understood and even proved. I will discuss one such recent example. I will introduce a critical string theory in two dimensions and demonstrate that this theory, viewed as two-dimensional quantum gravity on the worldsheet, is equivalent to a double-scaled matrix integral, which provides the holographic description. The worldsheet theory consists of Liouville CFT with central charge  $c \geq 25$  coupled to timelike Liouville CFT with central charge  $26-c$ . The double-scaled matrix integral has as its leading density of states the universal Cardy density of primaries in a two-dimensional CFT, which gives the theory its name. The talk is based on joint work with Scott Collier, Beatrix Mühlmann and Victor Rodriguez.

**Presenter:** EBERHARDT, L. (IAS Princeton)

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