

THE QUANTUM SPACETIME SEMINAR SERIES

Strings, Schwarzian, Maximal Chaos

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In this talk, we will discuss evidence that maximal chaos occurs for a generic probe quark-like degree of freedom, in a strongly coupled large-N theory. We will demonstrate this by extracting an effective Schwarzian action that describes the low energy physics of a long, open string embedded in AdS. We will argue that this maximal chaos is an inherent feature of the string worldsheet, and further present an example where an intrinsic Dbrane horizon, away from extremality, yields a similar result. We will conclude with open questions and possible future investigations.