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MÜNCHEN

ARNOLD SOMMERFELD  

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CENTER FOR THEORETICAL PHYSICS



# Sommerfeld Theory Colloquium

Prof. Larus Thorlacius

NORDITA

## The Black Hole Information Paradox

Hawking's information paradox arises when one considers the formation and subsequent evaporation of a black hole. It pits quantum mechanical unitarity against locality in spacetime and highlights the incompatibility between the world view offered by general relativity and that of quantum physics. In a gravity theory with a gauge theory dual, the information paradox must be resolved in favor of unitary evolution. The challenge is then to identify the non-local effects that implement unitarity on the gravity side.

Wednesday, 29<sup>th</sup> April 09, 10:30 h, Room 348 / 349, Theresienstr. 37 / III

Prof. V. Mukhanov