



TOHOKU FORUM for CREATIVITY

Tohoku Forum for Creativity Thematic Program 2015

Fundamental Problems in Quantum Physics: Strings, Black Holes and Quantum Information

International Workshop on Strings, Black Holes and Quantum Information

The puzzles and microstructures of black holes

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Schedule:

Thursday, September 10, 14:00-15:00

Place:

TOKYO ELECTRON House of Creativity 3F, Lecture Theater

Katahira Campus, Tohoku University

Abstract:

The entropy puzzle of the black hole is about where the microstates represented by the area entropy are. The information puzzle concerns the apparent loss of information as seen in the completely thermal spectrum of the Hawking radiation. I will discuss the research (fuzzball program) aiming to resolve these puzzles by postulating that the microstructure of the black hole is radically different from the one assumed in Hawking's original computation. In particular, the "black-hole microstate geometry program" focuses on microstructure describable within classical supergravity, and I report some progress in this area.