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CALIBRATED ENTANGLEMENT ENTROPY

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Abstract

The Ryu-Takayanagi prescription reduces the problem of calculating entanglement entropy in CFTs to the determination of minimal surfaces in a dual anti-de Sitter geometry. For 3D gravity theories and BTZ black holes, we identify the minimal surfaces as special Lagrangian cycles calibrated by the real part of the holomorphic form of a spacelike hypersurface. We show that generalised calibrations provide a unified way to determine holographic entanglement entropy that is also valid for warped AdS₃ geometries. We briefly discuss generalisations to higher dimensions.

Date : Monday, June 12, 2017

Time: 11:00

Place: IMBM Seminar Room, Boğaziçi University South Campus