Daniel Grumiller

Institute for Theoretical Physics

GRAVITY AND HOLOGRAPHY IN LOWER DIMENSIONS I (136.073)

Winter semester 18
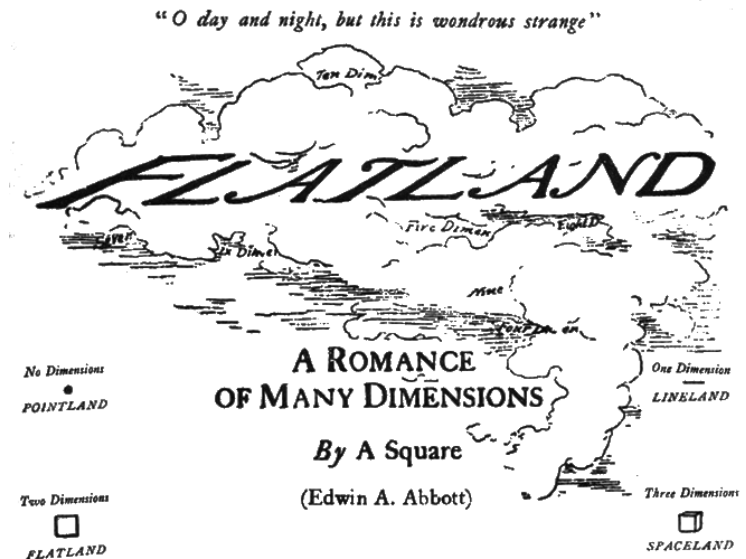
Location: Seminar room in FH, 3Rd floor, yellow tower

Time: 9:00-11:00 each Tuesday (starting October 2)

The main purpose of this lecture is to provide an introduction to the holographic principle using gravity models in two and three dimensions.

Contents:

gravity with boundaries
asymptotic Killing vectors
Cartan formulation
gravity in two and three dimensions
canonical boundary charges
asymptotic symmetry algebras
central extensions
AdS_3/CFT_2
holographic renormalization
correlation functions
holographic entanglement entropy

… and possibly selected research topics

"O day and night, but this is wondrous strange"

FLATLAND

A ROMANCE OF MANY DIMENSIONS

By A Square

(Edwin A. Abbott)

No Dimensions POINTLAND

One Dimension LINELAND

Two Dimensions FLATLAND

Three Dimensions SPACELAND

webpage: http://quark.itp.tuwien.ac.at/~grumil/teaching.shtml