GEOMETRY, TOPOLOGY, AND PHYSICS SEMINAR

2 + 1 Dimensional Gravity as an Exactly Soluble System, following Witten

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Friday, January 27, 2017, 4:00 p.m.
Room 6635 South Hall

Abstract: I will give an exposition of the classic paper of Witten titled above. In particular, I will show that $2 + 1$ pure Einstein gravity is classically a Chern-Simons theory and canonically quantize it in the case of zero cosmological constant. Time permitting, I will say a few words about the state of affairs for $\Lambda \neq 0$ and the relation of the $\Lambda < 0$ case to the AdS/CFT correspondence.

This seminar is part of the NSF/UCSB 'Research Training Group' in Topology and Geometry. Information about future meetings can be found at http://www.math.ucsb.edu/~drm/GTPseminar/