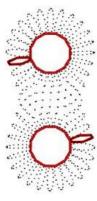TEXAS ★ STATE ®

UNIVERSITY

The rising STAR *of Texas*

Texas State Topology Seminar

Tuesday, 2017, November 7, 12:30 - 1:50 p.m., in ENC (HPB) 143

Speaker: David F. Snyder

Topic:

Integer homology 3-spheres and the 3-sphere recognition problem

Abstract

We'll outline a recent (2016) result of R. Zentner that shows the fundamental group of any integer homology 3-sphere that is not the 3-sphere admits irreducible representations in $SL(2, \mathbb{C})$ (this is related to question 3.105 from Rob Kirby's problem list). Then, by applying a result of Kuperburg, one gets as a corollary that the complexity of 3-sphere recognition is of the class coNP.