



Pacific Institute *for the*
Mathematical Sciences

PIMS - ULETHBRIDGE
DISTINGUISHED SPEAKER SERIES

JAYADEV ATHREYA

Friday, March 8, 2019
12:00 - 12:50 pm

Room B650
University of Lethbridge

GEODESICS ON PLATONIC SOLIDS



Jayadev Athreya
Department of Mathematics
The University of Washington
Director of Experimental Lab

Jayadev Athreya is an Associate Professor of Mathematics at the University of Washington, and the founder and Director of the Washington Experimental Mathematics Lab (WXML). His research is on geometry, dynamics, and connections to number theory. He is passionate about deepening people's involvement in mathematics, and via the WXML facilitates undergraduate research, public engagement, and mathematical fabrication in Seattle and throughout the Pacific Northwest. He was previously at the University of Illinois, where he founded and directed the Illinois Geometry Lab.

Abstract

In joint work with David Auricino and Pat Hooper, we study the problem of finding closed geodesics passing through exactly one vertex on the surfaces of Platonic solids. We show that there are no such trajectories on any of the solids except the dodecahedron, on which there are 31 equivalence classes of such trajectories.

The talk will be elementary and accessible to undergraduates.
Lunch provided

WEBSITE: [HTTPS://WWW.PIMS.MATH.CA/SCIENTIFIC-EVENT/190308-PDSSJA](https://www.pims.math.ca/scientific-event/190308-PDSSJA)



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