Institut für Geometrie und Topologie

Sommersemester 2022

## Workshop

## Prof. Claudio Gorodski

Universidade de São Paulo

## **Topics in polar actions**

 13.07.2022 - 14:00
 Part 1: Polar actions

 14.07.2022 - 18:00
 Part 2: Orbifold points

 15.07.2022 - 16:00
 Part 3: Variationally complete actions

IGT-Seminarraum 7.530, Pfaffenwaldring 57

Abstract: Part 1 introduces polar actions and culminates with Heintze, Liu and Olmos's argument to characterize them in terms of integrability of the distribution of normal spaces to the principal orbits. The other two lectures are devoted to two of Lytchak and Thorbergsson's results. In Part 2 we briefly review Riemannian orbifolds from the metric point of view, and explain their characterization of orbifold points in the orbit space of a proper and isometric action in terms of polarity of the slice representation above. In Part 3 we present their proof of the fact that variationally complete actions in the sense of Bott and Samelson are hyperpolar.



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