Department of Mathematics University of Notre Dame

FELIX KLEIN SEMINAR

Speaker: Bernhard Hanke University of Augsburg, Germany

Date: Thursday, October 4, 2018 Time: 2:00 PM Location: 258 Hurley Hall



Lecture Title: Local flexibility of open partial differential relations

Abstract

In his famous book on partial differential relations Gromov formulates an exercise concerning local deformations of solutions to open partial differential relations. We will explain the content of this fundamental assertion and sketch a proof. In the sequel we will apply this - to increase the excitement of Oktoberfest roller coasters without violating safety restrictions. - to construct $C^{1,1}$ -Riemannian metrics which are positively curved "almost everywhere" on arbitrary manifolds. This is joint work with Christian Bär (Potsdam).