Ebin's slice theorem and homotopy groups of moduli spaces of riemannian metrics

Jan-Bernhard Kordaß

(Fribourg)

Abstract:

This talk will survey a classical result of Ebin on the action of the diffeomorphism group on the space of riemannian metrics and its application in the study of the quotient under this action, which is called the moduli space of riemannian metrics. Based on this we will discuss situations in which we can obtain topological information on a moduli space of certain metrics from such information on the space of metrics. In particular, we will address results obtained by Hanke-Schick-Steimle and Wiemeler on the space of metrics with positive scalar curvature.

We will recap basic concepts in the study of spaces of riemannian metrics.

Tuesday, November 26, 2019, 13:15

MathII 0.101 (Lonza)