



How convexity links geometry and nonlinear analysis

A minimizer of a strictly convex function is unique. This applies also in infinite dimension, and is a powerful tool for solving variational problems and controlling the properties of their solutions. Geometrically, a compact subset of a hemisphere or a domain in a nonpositively curved simply connected manifold are convex, and optimization problems for

maps with values in such spaces lead to strictly convex functionals. Therefore, we can solve them and control their solutions. In this lecture, I shall show how to convert some geometric problems like the Bernstein problem for minimal graphs or the Margulis superrigidity problem into such variational problems and then solve them.

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Institut für Mathematik der FU Berlin

Großer Hörsaal der Informatik, Takustr. 9, 14195 Berlin

Weitere Informationen: www.math.berlin

Programm

17:00 Uhr **Prof. Dr. Jürgen Jost** (Max-Planck-Institut, Leipzig)
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18:00 Uhr Mitgliederversammlung der
Berliner Mathematischen Gesellschaft



Jürgen Jost

