Bernoullis Tafelrunde

Graduate Student Seminar

Thursday, 26 November, 12:20-13:10
Seminarraum 00.003, Spiegelgasse 1

Stefano Iula

Universität Basel

Singular Moser-Trudinger inequalities and their extremals

Abstract

Moser-Trudinger inequality naturally arises as a limiting case for the well known Sobolev embedding theorem. The existence of extremal functions for the Moser-Trudinger functional is classically due to Carleson and Chang. In this talk we will show how the proof of this result can be obtained by means of the Onofri inequality for the unit disk. Moreover we will consider Moser-Trudinger type functionals with singular potentials and extend the result to the case of surfaces with conical singularities.