



Einladung zum Oberseminar Mathematik in den Naturwissenschaften

Julius-Maximilians-Universität Würzburg
Lehrstuhl für Mathematik in den Naturwissenschaften

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Compactness of singular constant Q -curvature metric on punctured spheres

The Q -curvatures of various orders of a Riemannian metric generalize its scalar curvature, except that they transform under a conformal change according to a higher order differential equation (or, more generally, a nonlocal operator). Much recent work concentrates on recreating Yamabe's program (and all of the associated theory) in this more general setting. As with scalar curvature, conformal invariance forces one to consider singular solutions, even if one is at first only interested in smooth solutions. In this talk I will describe an analog of the singular Yamabe problem and discuss some properties of the moduli space of singular solutions on a punctured sphere. In particular, I will describe geometric properties that allow one to extract convergent subsequences from a family of solutions. In a key step we use a Pohozaev-type invariant, which is of independent interest. This is joint work with João Henrique Andrade, João Marcos do Ó and Juncheng Wei.

Ort: Mathematik Ost, 40.03.003/Zoom

Zeit: Donnerstag, 06.07.2023 um 10:15 Uhr

You are cordially invited to this lecture. Request the Zoom link from
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gez. Anja Schlömerkemper