



# Einladung zum Oberseminar Wissenschaftliches Rechnen

Julius-Maximilians-Universität Würzburg  
Lehrstuhl für Wissenschaftliches Rechnen IX

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## A Support Theorem for Integral Moments of a Symmetric $m$ -Tensor Field

In this talk I will present a brief account of a recent work done jointly with Anuj Abhishek, a graduate student at university of Tufts. I will first define what we mean by the  $q$ -th integral moment,  $I^q f$ , of any symmetric tensor field  $f$  of order  $m$  over a simple, real-analytic Riemannian manifold of dimension  $n$ . The zeroth integral moment of such tensor fields coincides with the usual notion of geodesic ray transform of the tensor fields. Then I will introduce some tools from geometry and microlocal analysis that we use to prove our result. Finally I will give an outline of the proof for our main theorem which tells us that if we know  $I^q f = 0$  for  $q = 0, 1, \dots, m$  over the open set of geodesics not intersecting a geodesically convex set, then the support of  $f$  lies within that convex set.

Ort: Raum 30.02.003 (2. Stock) (Mathegeb. 30 West)      Zeit: Mittwoch, 05.04.2017, 14.00 Uhr

Zu diesem Vortrag laden wir Sie herzlich ein.

*gez. Prof. Dr. Alfio Borzi*  
*gez. Prof. Dr. Roland Griesmaier*