



Leibniz  
Universität  
Hannover

## Oberseminar Zahlentheorie und arithmetische Geometrie

Benjamin Schmidt  
(UT Austin)

### Vector bundles and reflexive sheaves with extremal Chern characters

Moduli spaces of vector bundles, or more generally sheaves on algebraic varieties, are usually badly behaved. As soon as the dimension of the variety is at least three, they satisfy Murphy's Law in algebraic geometry, i.e., all types of singularities can occur on them. In this talk, I will introduce a class of stable reflexive sheaves in three-dimensional projective space, whose moduli spaces are smooth and irreducible, contrary to the general picture. These spaces are closely related to the numerical study of Chern characters of semistable sheaves. As a corollary one can obtain strict bounds on Chern characters of semistable sheaves of rank two on certain general type surfaces.

Donnerstag, 27.06.2019

12:00 - 13:00, Raum a410

Hauptgebäude der Leibniz Universität Hannover

Alle Interessierten sind herzlich eingeladen.