Mathematisches Kolloquium

Am Freitag, dem 10. Januar 2014 spricht um 14.00 Uhr ct im Hörsaal IV der Fachrichtung Mathematik (Gebäude E2 4)

Prof. Dr. Miroslav Englis
Mathematics Institutes, Prague
and Silesian University at Opava

über das Thema:

Arveson-Douglas conjecture and Toeplitz operators

Abstract: We show that if V is a homogeneous variety in $\mathbf{C}^n$, smooth outside the origin, and $\mathcal{M}$ the subspace in the Drury-Arveson space of all functions that vanish on V, then the commutators $[S_j, S_k^*]$, where S_j is the compression to $\mathcal{M}^\perp$ of the multiplication by the coordinate function z_j, $j = 1, \ldots, n$, belong to the Schatten p-class for all $p > \dim_{\mathbf{C}} V$. This settles the "geometric" version (in the terminology of Kennedy and Shalit) of the well-known Arveson-Douglas conjecture, for the case of smooth submanifolds and scalar-valued functions. The result also holds for the Hardy and weighted Bergman spaces. Our main tool is the theory of Toeplitz operators with pseudodifferential symbols due to Boutet de Monvel and Guillemin.
[Joint work with Jörg Eschmeier, Saarbrücken.]

Der Gast wird von Prof. Dr. J. Eschmeier betreut.

Alle Interessenten sind zum Vortrag herzlich eingeladen.

Kaffee und Tee ab 13.45 Uhr im Konferenzraum der Mathematik (Erdgeschoss, Raum 1.03)

Die Dozenten der Mathematik