Mathematisches Kolloquium

Am Freitag, dem 25. Oktober 2013 spricht um 15:45 Uhr s.t. im Hörsaal IV der Fachrichtung Mathematik (Gebäude E2 4)

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über das Thema:

Spectral And Complete Spectral Sets

Abstract: A compact set K in $\mathbb{C}^n$ is a spectral set for a commuting tuple $T = (T_1, \ldots, T_n)$ of bounded Hilbert space operators if the joint spectrum of T is contained in K and if the von Neumann-type inequality

$$\|r(T_1, \ldots, T_n)\| \leq \sup\{|r(z)| : z \in K\}$$

holds for all rational functions r in $\mathrm{Rat}(K)$. If the corresponding inequality holds even for every $m \times m$ matrix $r = (r_{i,j})$ with entries in $\mathrm{Rat}(K)$, then K is called a complete spectral set for T. By a result of Arveson, K is a complete spectral set for T if and only if T possesses a normal boundary dilation over K. For nice domains in $\mathbb{C}$, such as the unit disc or an annulus, the conditions of being spectral and completely spectral are equivalent. In the lecture we start with the classical theory and try to present some more recent positive and negative results on one and several variable spectral sets.

Der Gast wird von Prof. Eschmeier betreut.

Alle Interessenten sind zum Vortrag herzlich eingeladen.

Da am 25.10.2013 mehrere Gäste vortragen, ist der Ablauf wie folgt geplant:
14:15 - 15:15   Vortrag von Prof. G. James
15:15 - 15:45   Kaffee und Tee im Konferenzraum der Mathematik (Erdgeschoss, Raum 1.03)
15:45 - 16:45   Vortrag von Prof. T. Bhattacharyya

Die Dozenten der Mathematik