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Im

Oberseminar Partielle Differentialgleichungen

gibt es am

Donnerstag, dem 14. November 2013,

einen Vortrag von

**Prof. Dr. Robert Denk**

(Universität Konstanz)

*“Boundary value problems in spaces of higher regularity”*

Beginn: **15:15 Uhr**

Raum: **F 426**

Interessenten sind herzlich willkommen!

R. Denk, H. Freistühler, R. Racke, O. Schnürer

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**Abstract:** It is well known that the Dirichlet-Laplacian in the half-space  $\mathbb{R}_+^n$  is a good operator (e.g., sectorial) in the space  $L^p(\mathbb{R}_+^n)$ . However, if the basic space is  $W_p^s(\mathbb{R}_+^n)$  with  $s > 0$ , much less is known. We discuss a priori-estimates and generation of semigroups for parabolic boundary value problems in various cases. For homogeneous boundary conditions, the Banach scale method due to Amann can be applied. In the case of inhomogeneous boundary conditions, estimates in parameter-dependent norms can be shown which are, however, not strong enough to obtain sectoriality. (Joint work with Tim Seger.)