

Fachbereich Mathematik

MATHEMATISCHES KOLLOQUIUM

Im Rahmen des Kolloquiums spricht **Herr Prof. Bin Han**
University of Alberta

über das Thema: **Wavelet Frames in Sobolev Spaces and the Projection Method**

Abstract:

Wavelets in Sobolev spaces are of interest in numerical algorithms, though most traditional wavelets are analyzed and constructed in the square integrable function space $L^2(\mathbb{R})$. In this talk, we shall first present a short overview on some background of wavelets in $L^2(\mathbb{R})$. Then we shall discuss pairs of dual wavelet frames (and Riesz wavelet bases) in Sobolev spaces $H^s(\mathbb{R})$. We shall see that many classical results on wavelets in the space $L^2(\mathbb{R})$ can be naturally extended into the setting of wavelets in Sobolev spaces. Finally, we shall discuss how to construct pairs of dual wavelet frames in Sobolev spaces via the projection method. Some examples will be provided to illustrate the theoretical results.

Termin: Montag, den **23. April 2006, 17.15 Uhr**
Ort: Hörsaal E 28, Mathematikgebäude
Tee: 16.45 Uhr, Raum 614

Zu diesem Vortrag laden die Dozenten der Mathematik ein.

Campus Nord
Vogelpothsweg 87
44227 Dortmund

Zu erreichen mit den
S-Bahn-Linien S1 und S21
Haltestelle „Dortmund Universität“

Universitätskasse Bochum
Sparkasse Bochum / BLZ: 430 500 01
Konto-Nr.: 130 05 16