# 数学与系统科学研究院 计算数学所系列课程

#### 报告人: Professor Bin Han

( Department of Mathematical and Statistical Sciences, University of Alberta )

### 报告题目:

A short course on wavelet analysis

邀请人: 许志强 研究员

## 报告时间:

2014年4月18日(周五)上午10:00~12:00

2014年4月25日(周五)上午10:00~12:00

2014年4月29日(周二)上午10:00~12:00

2014年5月09日(周五)上午10:00~12:00

报告地点: 科技综合楼三层 311 计算数学所报告厅

#### **Outline of course:**

In this short course, we shall discuss some basics on wavelet analysis and some of its recent development. A tentative list of some topics is as follows:

- 1. A brief review on Fourier analysis.
- 2. Discrete wavelet/framelet transform.
- 3. Bases and frames in Hilbert spaces.
- 4. Orthonormal wavelets and tight framelets.
- 5. Construction of wavelets and framelets by filter banks.
- 6. Analysis of refinable functions.
- 7. Applications of wavelets and framelets to image processing.
- 8. Riesz wavelets in Sobolev spaces.
- 9. Spline wavelets and framelets.
- 10. Wavelets for numerical analysis.

# 欢迎大家参加!