

数学与系统科学研究院

计算数学所学术报告

报告人: **Prof. Minghong Pi**

(*Senior Computer Vision Scientist, System Pathology Company,
Charles River Laboratories, USA*)

报告题目:

**A Fast and Effective Model for
Wavelet Subband Histograms and Its
Application in Texture Image
Retrieval**

邀请人: 曹礼群研究员

报告时间: **2011 年 7 月 6 日 (周三)**

上午 10:00-11:00

报告地点: **科技综合楼三层 311**

计算数学所报告厅

Abstract:

This talk presents a novel, effective, and efficient characterization of wavelet subbands by bit-plane extractions. Each bit plane is associated with a probability that represents the frequency of 1-bit occurrence, and the concatenation of all the bit-plane probabilities forms our new image signature. Such a signature can be extracted directly from the code-block code- stream, rather than from the de-quantized wavelet coefficients, making our method particularly adaptable for image retrieval in the compression domain such as JPEG2000 format images. Our signatures have smaller storage requirement and lower computational complexity, and yet, experimental results on texture image retrieval show that our proposed signatures are much more cost effective to current state-of-the-art methods including the generalized Gaussian density signatures and histogram signatures.

欢迎大家参加!