

Quantile Interpolation of Distributions

3:00 pm - 4:00 pm, Nov. 27th, 2014 (Thursday)
Room 2736, Science Building No. 2, Peking University

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Both Monte Carlo simulations and multiple observations, measurements, or experiments produce what's called an ensemble data set. Ensemble data represents both the data and uncertainty about the data. They are gaining popularity and are now routinely used in weather forecasting for example. Analyzing such data sets, particularly, with the proper handling of the uncertainty aspect still requires further research. This talk will focus on the aspect of interpolating pointwise distributions derived from ensemble data sets. We will discuss the desirable properties of interpolation and look at a number of alternative interpolation methods. Finally, we will present an efficient bivariate interpolation technique based on interpolating quantile curves of CDF surfaces.



Alex Pang is a Professor of Computer Science at UC Santa Cruz. He received his PhD in Computer Science from UCLA in 1990, and his BS in Industrial Engineering from University of the Philippines with magna cum laude in 1981. His research interests are in comparative and uncertainty visualization, flow and tensor visualization, and collaborative visualization.

His research has been supported by various funding agencies such as NSF, ONR, Darpa, DOE, LANL, and NASA, as well as industrial partners such as Sun and HP. Professor Pang has received a certificate of recognition for previous NASA work, as well as an excellence in teaching award from UCSC. He served as an associate editor of the IEEE Transactions on Visualization and Computer Graphics, papers co-chair for IEEE Visualization 2006 and 2007, and UCSC Chief Scientist for CITRIS from 2006-2007.