

## SEMINAR ANNOUNCEMENT

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**Title:** Combining Information from Independent Sources through Confidence Distributions

**Speaker:** Professor Minge Xie  
Department of Statistics  
Rutgers University

**Date:** Friday, March 11, 2005

**Time:** 4:00 pm – 5:00 pm

**Location:** Monroe Hall (2115 G Street NW), Room 206

**Abstract:** This paper develops new methodology, together with related theories, for combining information from independent studies through confidence distributions. A formal definition of a confidence distribution and its asymptotic counterpart (i.e., asymptotic confidence distribution) are given and illustrated in the context of combining information. Two general combination methods are developed: the first along the lines of combining  $p$ -values; the second by multiplying and normalizing confidence densities. The paper also develops adaptive combining methods which should be of practical interest. The key point of the adaptive development is that the methods attempt to combine only the correct information, downweighting or excluding studies containing little or wrong information about the true parameter of interest. The combination methodologies are illustrated through several examples in a variety of applications. One of the examples re-analyzes a data set studied by Efron (1993) and it shows that the adaptive CD combination method provides a quite accessible and simple frequentist alternative to the empirical Bayes methods proposed in Efron (1993, 1996).

(This is a joint work with Kesar Singh and Bill Strawderman.)

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**Directions:** Foggy Bottom-GWU Metro Stop on the Orange and Blue Lines. The campus map is at <http://www.gwu.edu/~map>.

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