1108-60-18   **Chunsheng Ma*** (`cma@math.wichita.edu`), Department of Mathematics and Statistics, Wichita State University, Wichita, KS 67260-0033. *Multifractional vector Brownian motions and their generalizations.*

In this talk we introduce three types of covariance matrix structures for Gaussian or elliptically contoured vector random fields in space and/or time, which include fractional, bifractional, and trifractional vector Brownian motions as special cases, and reveals the relationships among these vector random fields, with an orthogonal decomposition established for the multifractional vector Brownian motion. (Received November 06, 2014)