1127-60-249 **Vladas Pipiras*** (pipiras@email.unc.edu), Department of Statistics & OR, CB# 3260, Hanes Hall, University of North Carolina, Chapel Hill, NC 27599, and **Stefanos Kechagias**. *Bivariate long-range dependent time series models with general phase.*

The focus of this talk is on bivariate (vector-valued) time series that exhibit long-range dependence (LRD) and, more specifically, on the so-called phase parameter, an important quantity that appears in the cross spectrum at the zero frequency and controls the asymmetry of the series at large time lags. Previously considered bivariate LRD models have necessarily special phase parameter values, and hence can be unsuitable to capture general LRD behavior in bivariate time series. In this talk, I will introduce several bivariate LRD models that allow for general phase, including a bivariate extension of the celebrated FARIMA class with a proposed set of identifiable parameters. I will indicate their connections to bivariate counterparts of fractional Brownian motion, and raise several open problems. Finally, I will also discuss maximum likelihood inference for the proposed models, and present an application to the annualized US inflation rates for goods and services. (Received February 05, 2017)