Seminar Series in Statistics and Biostatistics

17.09.2018, 14:45 @ Seminar Room 819, Niels Henrik Abels hus, 8th floor

Idris Eckley: A wavelet-based framework for modelling non-stationary multivariate time series

Abstract: his talk will consider the problem of estimating time-localised, cross-dependence in a collection of non-stationary signals. We develop a multivariate locally stationary wavelet framework that provides a time-scale decomposition of the second-order structure within multivariate series, thus naturally capturing the time evolving cross-dependence between components of the series. Under the proposed model, we rigorously define and estimate two forms of cross-dependence measures: the wavelet coherence and wavelet partial-coherence that respectively measure indirect and direct linear associations between a pair of series. The talk will conclude by describing recent work exploring how this framework might be applied to impute missing data within multivariate time series.

Idris Eckley
Department of Mathematics and Statistics, Lancaster University

Professor Idris Eckley research focuses on wavelet and multiscale metohds, changepoint analysis, methods and applications for time series data

Next seminar	**Contact Information**
17.09.2018 @ 14:15 **Giuliana Cortese** (University of Padova)	Riccardo De Bin – debin@math.uio.no Emanuele Gramuglia – emanueg@math.uio.no