MACQUARIE UNIVERSITY
DEPARTMENT OF MATHEMATICS AND STATISTICS
STATISTICS SEMINAR SERIES

Speaker: A/Professor Shelton Peiris, School of Mathematics and Statistics, The University of Sydney
Date: Tuesday 25 September 2018, Time 1-2pm
Venue: Room 264, 14 Sir Christopher Ondaatje Ave

Title: On Theory and Applications of Generalized Fractional Processes: Applications to Univariate and Multivariate Gegenbauer Processes with Long Memory

Abstract:
This paper considers a flexible new class of generalized long memory time series models generated by a Gegenbaur autoregressive moving average (GARMA) structure. Using the theory of generalized fractional differencing, we establish the existence and uniqueness of second order solutions under certain regularity conditions. We briefly discuss the theory of model building for both the univariate and multivariate cases. Following a simulation study, we provide evidence that supports parsimonious versions of the model in applications.

This is a joint work with Hao Wu and Richard Hunt, School of Mathematics and Statistics, The University of Sydney, NSW, Australia.

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