Speaker: (Proto. Dr.) Antonio Dalessandro

Talk Title: On the relationship between Copula functions and Radon-Nikodym derivative of discrete measures.

Talk Abstract:

We investigate the relationship between the properties of Radon-Nykodym derivative and those of copula functions of discrete measures. Such measures are constructed by a local Gaussian approximation of continuous diffusions. We use generalized Birth-Death processes to firstly locally mimic the behaviour of diffusion exhibiting a more complicated correlation structure and secondly calculate the corresponding approximated measure. In this setting we demonstrate that a copula function of discrete measures is the Radon-Nykodym derivative of the two measures. Our findings are also supported by illustrative examples.

Speaker Bio:

Antonio Dalessandro holds a M.Sc. degree in Electrical Engineering (with first class honours) from the Politecnico di Bari, Italy, in 2001 a M. Phil and Ph.D. degrees in Mathematics from Imperial College London in 2009 and a Ph.D. in Statistics from University College London.
From 2000 to 2004 was a fellow researcher at CERN, Geneva working at the LHC experiment ALICE dealing with the modelling of its ITS detector and control system. From 2004 to 2005 he was Assistant Professor at the Department of Econometrics of the University of Geneva. Since 2005 he worked in the city of London for several financial Institutions and Investment banks, Moody's Investor Services,

Fitch Ratings, UBS among those. He is currently a senior quant and trader heading the Inflation quants and the Electronic Bond Trading platform development at a major Investment bank.