School of Mathematics and Applied Statistics
2014 Colloquium Series

Title: Measure & measurability & probability

Speaker Roman Fric (Slovak Academy of Sciences in Kosice/Catholic University in Ruzomberok)

Time and Date: 3:30pm, Friday, 17 January 2014

Location: 6-210

Abstract: We start with observations about the mathematical foundations of probability. We describe the role of the range of probability measures (closed unit interval): it determines the weak structure of random events. This leads to a construction of generalized random events, probability measures, and observables (dual notions to random variables) within a category cogenerated by a suitable object which rules random events. In turn, this makes it possible to understand the transition from C(lassical) Kolmogorov P(robability) T(heory) to F(uzzy) P(robability) T(heory). We mention quantum aspects of the FPT. Finally, we hint at some applications.

Fric, R. and Papco, M. : On probability domains II. Int. J. Theor. Phys. 50 (2011), 37783786 DOI 10.1007/s10773-011-0855-2