Analysis Seminar

Title: Markovianity and the Thompson monoid F+

Speaker: Arundhathi Krishnan (UCC)

Date: Tue 26th November 2019 at 4:20PM

Location: Seminar Room SCN 1.25

Abstract: In the process of identifying a suitable distributional symmetry to describe Markovianity, it has been conjectured by C. Köstler that there is a certain correspondence between unilateral Markov shifts and representations of the Thompson monoid F^+. After having illustrated this correspondence in the context of tensor products of W^*-algebraic probability spaces, I will present the following two general results. A representation of the Thompson monoid F^+ in the endomorphisms of a W^*-algebraic probability space yields a noncommutative Markov process (in the sense of Kümmerer). Conversely, such a representation is obtained from a noncommutative Markov process which is given as coupling to a so-called spreadable noncommutative Bernoulli shift.