

DVF of Prof. Panangaden, July 2011

Prof. Panangaden during his visit to UoE as a SICSA fellow gave a series of four lectures on labelled Markov processes. Those were well attended by people from the UoE School of Informatics as well as colleagues and doctoral students from numerous other academic institutions in Scotland. The lectures were filmed and will be available soon to the public. Prof Panangaden also gave a lecture at the University of Strathclyde, where he was invited by Prof Ghani (UoS, info) on various dualities in the theory of automata which was attended in particular by Dr Leinster (UoG, maths), Dr Gabbay (HWU, info), and Prof McBride (UoS, info). He also held a series of working groups on various subjects such as q-deformed oscillators and group representation (attended by Dr Anderson (HWU, physics), Dr Ohlberg (HWU, physics) and several other physicists from other Scottish institutions). Prof Panangaden also participated actively to a one-day workshop on advances in quantum cryptography organized by the multidisciplinary QUISCO group (QUantum Information Scotland) which federates various Scottish institutions.

These inspirational lectures, bridging between the behavioural study of probabilistic systems and the foundations of physics led to the identification of several points of potential collaboration, among which: work on nominal calculi (important both from a foundational and practical point of view in programming) and models based on the symmetric tensor algebra with Dr Gabbay and Prof Danos; work on furthering and generalizing the theory of metric-based behavioural approximation of labeled Markov processes with Prof. Plotkin, and work on formal approaches to the very active topic of quantum cryptographic protocols with Dr Kashefi (UoE, info) and Drs Markham and Diamanti (CNRS, Paris). All in all, it was a delightful and inspirational visit which we hope we can renew in the near future.