***Complex Systems Seminar***

**Systems and Control Research Centre**

**“Evidence for a vicious cycle of poverty, vulnerability and disasters and implications for funding humanitarian operations”**

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**19th November, Room: A108  13.00-14.00.**

**Abstract**: Using global data for 50 years from 1963 to 2012 as well as country-level economic data, we show that disasters are causing more destruction over time, this means more funding would be needed from reluctant donors. To explain the increasing destructiveness, we consider a conceptual framework linking disasters to poverty, poverty to vulnerability, and vulnerability to disasters in a vicious cycle, with exogenous hazards. We test this framework using global country-level economic and disaster data to show each link in this vicious cycle to be statistically significant, thus potentially explaining the growing destruction. Therefore, each link in the vicious cycle must be targeted by development/humanitarian operations on an on-going basis as part of comprehensive framework rather than only responding when a disaster strikes. Moreover, the empirical relations between poverty, vulnerability and disasters should be used to quantify avoided costs as a way to capture the benefit of development efforts and humanitarian relief.