

Dr Clifford Gilmor (UCC)

Title: The Dynamics of Linear Operators

Abstract:

Linear dynamics has been a rapidly evolving area since the early 1990s. It lies at the intersection of operator theory and topological dynamics, and its central property is hypercyclicity. In this talk I will give a general introduction to hypercyclicity and the stronger property of frequent hypercyclicity, whence I will demonstrate that many natural continuous linear maps turn out to possess these properties.

I will finish by outlining some recent joint work with Eero Saksman and Hans-Olav Tylli (University of Helsinki) on the growth rates of harmonic functions that are frequently hypercyclic with respect to the partial differentiation operator.