

Programme

A Workshop Celebrating the Research Achievements of Dr Edwin J. Beggs

4 June 2026

Department of Mathematics, Swansea University
Computational Foundry, 002

11:00–11:05

Head of Department of Mathematics, Professor Gibin Powathil

Welcome and Opening Remarks

11:05–11:20

Ian Davies

Title:

A Brief History of Edwin

11:20–12:10

John Tucker

Title:

The Secret Life of E. J. Beggs

Abstract:

Embargoed until 4 June.

12:10–14:00

Lunch Break

14:00–14:50

Shahn Majid

Title:

Nonassociativity and Quantum Geodesics

Abstract:

The talk will focus on two key innovations in the area of noncommutative or “quantum” Riemannian Geometry for which Edwin Beggs is uniquely responsible and which I think are of great importance in its future development. These revolve around nonassociativity in one form or another, starting with his observation that if H is a subgroup of a finite group G then any choice of coset representatives of G/H results in a non-strictly associative monoidal category of modules of a certain quasi-Hopf algebra built from this data.

The second is the notion of quantum geodesics, in which a density on spacetime is replaced by a wavefunction, and this in turn could be replaced by a noncommutative coordinate algebra completed, in principle, to a Hilbert bimodule. When this is applied to the algebra of differential operators on a manifold, as in recent joint work with Beggs, one discovers that the natural differential structure is generically nonassociative in the presence of curvature, and that killing this nonassociativity is actually a novel take on why particles move along geodesics in the first place. How the two topics could be related is left as an intriguing possibility for the future.

15:00–15:50

Tomasz Brzezinski

Title:

Affunctional Analysis

Abstract:

In the talk I will describe an attempt to formulate basic concepts of functional analysis, such as Banach space, Banach algebra, Hilbert space, C^ -algebra etc., in the category of affine spaces.*

15:50–16:00

Head of School of Mathematics and Computer Science, Professor Elaine Crooks

Closing Remarks

18:30

Workshop Dinner

Adelina’s Restaurant, Patti Pavilion, Mumbles Road, Swansea, SA1 4PQ