# UCD School of Mathematics and Statistics Colloquium Seminar

**Title:**      Groupoids (Stacks) associated with non–commutative surfaces

**Speaker:**    Professor COLIN INGALLS (Carleton University, Ottawa, Canada)

**Date:**       Wed 24th May 2023 at 2:00PM

**Location:**   Seminar Room SCN 1.25

**Abstract:** This is joint work with Eleonore Faber, Matthew Satriano, and Shinnosuke Okawa. This will be a general audience talk. One of the main constructions of Connes' nocommutative geometry is a construction of the convolution algebra of a groupoid. It is not clear how to characterize which algebras can be obtained this way. We construct a groupoid associated to a smooth, finite over its centre, noncommutative surface which has the same category of modules. This was done locally by Reiten and Van den bergh and in dimension one by Chan and I. We hope to use this result to study Artin's conjectured classification of noncommutative surfaces by reduction to characteristic p.