

AROUND GODEAUX SURFACES

Speaker: Miles Reid

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Time: Fri., Sep. 18th, 15:00-17:00

Venue: Room 106, SCMS

Abstract:

My talk is in two parts. The first discusses a simple construction of the "Godeaux curves", the curves that appear as elements of the 2-canonical linear system $|2K_S|$ on a simply-connected Godeaux surface.

The second part concerns geometric quotient constructions in characteristic p or mixed characteristic at p involving the Tate-Oort group scheme TO_p . This is a special and quite technical object, and I will give a light-weight description with the simplest cases, before describing the construction of Godeaux surfaces with 5-torsion in mixed characteristic at 5.

Most of what I say is contained on my TO_p webpage <https://mreid.warwick.ac.uk/TOp/> and the links given there.