Department of Mathematics, BGU

Jerusalem - Be'er Sheva Algebraic Geometry Seminar

On *Nov ,25 2020*

At *15:00 – 16:30*

In

Netan Dogra (Oxford)

will talk about

Bad reduction and fundamental groups

Abstract: This talk will be about two related results concerning Galois actions on pro-p fundamental groups of curves over mixed characteristic local fields, with applications to the algorithmic resolution of Diophantine equations. The first result is joint with Alex Betts, and gives a description of how the Galois action on the fundamental group varies with the choice of basepoint in terms of harmonic analysis on the dual graph of the special fibre of a stable model (when p is dffierent from the residue characteristic). The second result is joint with Jan Vonk, and gives a description of how to compute the Galois action (in a p-adic Hodge theoretic sense) when the residue characteristic is p and the curve has semistable reduction.