Stanford Department of Mathematics Number Theory Seminar

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2:30–3:30pm, 383N

Moduli of Drinfeld shtukas over the projective line

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Abstract

Elliptic curves over the rationals are modular. This means either of two equivalent conditions: an automorphic condition (the L-function is meromorphic, with functional equation), and a motivic condition (there is a uniformization by a modular curve).

For elliptic curves over global function fields, there is a similar story, where the role of modular curves is played by Drinfeld modular curves. In this setting we can hope for a more strict version of the motivic condition, involving moduli spaces of shtukas. We'll explain this, along with some explicit descriptions of moduli spaces of shtukas over the projective line.