

ALGEBRA
SEMINAR

Selmer groups, ranks of elliptic curves, and applications

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Abstract: I'll discuss some forthcoming results on Selmer groups in twist families of elliptic curves. In work with Lemke Oliver, we bound the average size of the 2-Selmer group in quadratic twist families, when $E[2](\mathbb{Q}) = 0$. This bounds the average Mordell-Weil rank in such families. I'll also discuss work with Alpoge and Bhargava on Selmer groups of sextic twists of elliptic curves, with an application to a question about cubic fields.

Tuesday, January 22, 2019, 4:00 pm
Mathematics and Science Center: W201

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