Title

Brauer-Manin obstructions on Kummer Surfaces of CM elliptic curves

Speaker: Mohamed Tawfik, King’s College London
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Room: MSCS 514

Abstract: We discuss Brauer-Manin obstructions on Kummer surfaces of products of certain CM elliptic curves. We start by putting necessary and sufficient conditions on these surfaces to get a non-trivial transcendental Brauer group, then we find a generator of this group. Further, using a theorem by Harpaz and Skorobogatov, we show that a non-trivial element of order 5 of the transcendental Brauer group always gives rise to Brauer-Manin obstruction to weak approximation on these surfaces. Finally, we show that for most cases there is no obstruction coming from the algebraic part.

This talk will be on Zoom. Contact Paul Fili for the link.