COLLOQUIUM

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Point counting with twists

Mathematics
and
Statistics
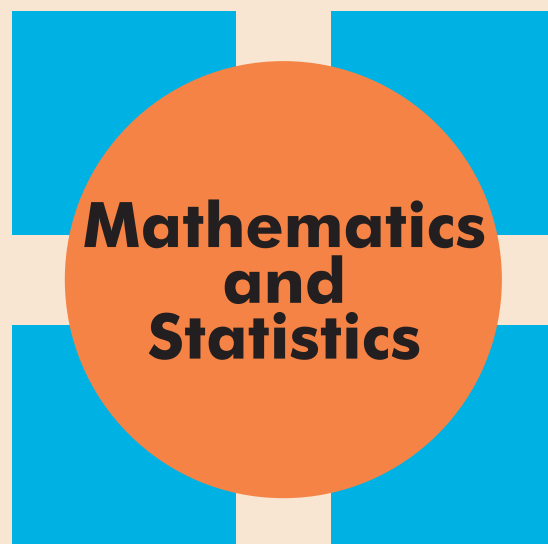
Date: Friday October 7, 2022
Time: 3:30 PM
Zoom link:

https://uregina-ca.zoom.us/j/92508741353?pwd=UzFOMjVMelVkRWhqR215cjd6dTlCQT09

Abstract: Consider a variety over a finite field. The number of points over the field is not only an invariant of the variety, but also of its "scissors congruence" type: of we cut up the variety into locally closed pieces, and rearrange those pieces into another variety, the number of points does not change. Moreover, if we have an automorphism of a variety, the permutation induced on the points is similarly an invariant of the automorphism. In this talk we will discuss a way of enhancing this invariant to an invariant which can distinguish different types of automorphisms and use it to detect some interesting structures in the higher K-theory groups of varieties.

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