## MAR14-2013-020251

Abstract for an Invited Paper for the MAR14 Meeting of the American Physical Society

Weak localization and antilocalization in topological insulator thin films with coherent bulk-surface  $\operatorname{coupling}^1$ 

ION GARATE, Université de Sherbrooke

This talk will review the theory and experiments concerning quantum corrections to conductivity in thin films of three dimensional topological insulators. In particular, I will discuss how the magnitude and sign of the low-field magnetoresistance are influenced by bulk-surface coupling, gate voltage, size quantization effects and magnetic order.

<sup>1</sup>The speaker is financially supported by Canada's NSERC