

## THE DEPARTMENT OF MATHEMATICAL SCIENCES PROUDLY PRESENTS

## COLLOQL2020-21-II

Quantum Invariants of 3-manifolds and the mapping class group.

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In this talk we will see a historical account of quantum invariants of knots and 3-manifolds since their introduction as well as some of the important questions about them. Then we will show the relationship of these invariants with invariants of an algebraic nature of the "symmetry group" of a surface. In particular, we show some topological interpretations of the universal quantum invariant of 3-manifolds (the Le-Murakami-Ohtsuki invariant) using such algebraic invariants.

