1167-51-344 **Maxence Mayrand***, Department of Mathematics, University of Toronto, Bahen Centre, 40 St. George St., Toronto, Ontario M5S 2E4, Canada. *Symplectic reduction along a submanifold and the Moore-Tachikawa TQFT.*

In 2011, Moore and Tachikawa conjectured the existence of certain complex Hamiltonian varieties which generate two-dimensional TQFTs where the target category has Lie groups as objects and holomorphic symplectic varieties as arrows. It was solved by Ginzburg and Kazhdan using a technique that can be thought of as a "symplectic reduction by a group scheme." We generalize their construction by introducing a notion of "symplectic reduction by a groupoid along a submanifold." It recovers many constructions in symplectic geometry as special cases, such as standard symplectic reduction, preimages of Slodowy slices, symplectic implosion, the Mikami-Weinstein reduction, and the Ginzburg-Kazhdan examples. This is joint work with Peter Crooks. (Received March 10, 2021)