## 1167-55-180 Sam Gunningham\* (samgunningham@gmail.com) and Pavel Safronov. Complex Lagrangian intersections and applications to skein theory.

Given a pair of holomorphic Lagrangians in a complex symplectic manifold, there are various ways one can assign a dg vector space, representing their quantum intersection. In our work in progress we compare the "de Rham" construction via deformation quantization with the "Betti" via perverse sheaves of vanishing cycles. As an application we are able to compare two a priori very different finite dimensional vector spaces assigned to a closed oriented 3-manifold: the generic skein module and the sheaf-theoretic complexified Floer homology. (Received March 06, 2021)