Sam Gunningham* (samgunningham@gmail.com), School of Mathematics, University of Edinburgh, James Clerk Maxwell Building, Edinburgh, EH9 3FD. *The finiteness conjecture for skein modules.*

The Kauffman bracket skein module of an oriented 3-manifold M is a vector space (depending on a parameter q) which is generated by framed links in M modulo certain skein relations. The goal for the talk is the explain our recent proof (joint with David Jordan and Pavel Safronov) that the skein module of a closed 3 manifold is finite dimensional for generic q, confirming a conjecture of Witten. The proof involves understanding skein modules in terms of deformation quantizations of SL(2,C)-character varieties. (Received September 04, 2020)