1163-57-1065   **Charles D Frohman** and **Joanna Kania-Bartoszynska***, jkaniaba@nsf.gov, and **Thang Q Le**. *Geometric Kauffman bracket invariant of closed 3-manifolds.*

Kauffman bracket skein module of a 3-manifold M is defined by taking the linear combinations of isotopy classes of framed links in M with complex coefficients, and dividing by a submodule spanned by the Kauffman bracket skein relations. We define a reduced Kauffman bracket skein module that depends on a choice of an irreducible representation of the fundamental group of M into SL(2,C). We show that if the 3-manifold is closed then the reduced Kauffman bracket skein module is isomorphic to complex numbers. This can be interpreted as extending the Kauffman bracket invariant of links in a 3-sphere to a geometric invariant in an arbitrary closed, oriented 3-manifold. (Received September 14, 2020)