Mike Krebs* (mkrebs@calstatela.edu), Department of Mathematics, 5151 State University Drive, Los Angeles, CA 90032. Toledo invariants of Higgs bundles on elliptic surfaces associated to base orbifolds of Seifert-fibered homology 3-spheres.

To each connected component in the space of semisimple representations from the orbifold fundamental group of the base orbifold of a Seifert fibered homology 3-sphere into the Lie group U(2,1), we associate a real number called the orbifold Toledo invariant. Using the theory of Higgs bundles, we explicitly compute all values this invariant takes on. (Received July 26, 2006)