Charles Frohman\* (frohman@math.uiowa.edu), Department of Mathematics, The University of Iowa, Iowa City, IA 52242, and Kania-Bartoszynska (jkaniaba@nsf.gov), 4201 Wilson Boulevard, Arlington, VA 22230. Natural Volumes on Character Varieties of Three-Manifolds.

We will discuss the relationship between Natural Volumes on Character Varities, Reidemeister Torsion, and Quantum Invariants. After an explanation of how to induce volume forms we discuss different formulas for them coming from a local-global principle. We will finally look at some examples of the volumes for knots and three-manifolds. (Received July 31, 2008)