1126-37-219   **Bojko Bakalov*** (`bojko_bakalov@ncsu.edu`), Department of Mathematics, North Carolina State University, Raleigh, NC 27695, and **William Wheeless**. *The extended bigraded Toda hierarchy and its symmetries.*

The extended bigraded Toda hierarchy is an integrable system satisfied by the Gromov–Witten total descendant potential of $\mathbb{CP}^1$ with two orbifold points. We construct its additional symmetries and describe explicitly their action on the Lax operator, wave operators, and tau-function of the hierarchy. In particular, we obtain infinitesimal symmetries that act on the tau-function as a subalgebra of the Virasoro Lie algebra. (Received January 14, 2017)