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Bojko Bakalov* (bojko_bakalov@ncsu.edu), Department of Mathematics, North Carolina State University, Raleigh, NC 27695, and **William Wheeless**. *Additional symmetries of the extended bigraded Toda hierarchy.*

The extended bigraded Toda hierarchy is an integrable system satisfied by the 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 September 10, 2016)