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Winfried Bruns* (wbruns@uos.de), Universität Osnabrück, FB Mathematik/Informatik, 49069 Osnabrück, Germany. *Recent extensions of Normaliz.*

Normaliz is a computer program for the computation of Hilbert bases of the monoids of lattice points in rational cones, their Hilbert series and related data. In the last year several algorithmic improvements have been implemented, for example in the parallelization of Fourier-Motzkin elimination and pyramid decomposition, in the computation of lattice points in rational polytopes and in the treatment of large simplicial cones. More importantly, the functionality has been extended by the computation of lattice points polyhedra in general and Hilbert series of "semi-open" monoids. (Received August 06, 2014)