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**Matthias Köppe\*** (mkoepp@math.ucdavis.edu), Department of Mathematics, One Shields Avenue, Davis, CA 95616, and **Sven Verdoolaege** and **Kevin M. Woods**. *An Implementation of the Barvinok–Woods Integer Projection Algorithm*. Preliminary report.

We describe the first implementation of the Barvinok–Woods (2003) algorithm, which computes a short rational generating function for an integer projection of the set of integer points in a polytope in polynomial time, when the dimension is fixed.

The projection algorithm is based on Kannan’s partitioning lemma and the application of set operations to generating functions that correspond to these sets. We use a variant of the recent strengthening of the partitioning lemma due to Eisenbrand and Shmonin (2007) and provide several algorithmic refinements to avoid performing redundant set operations. (Received August 11, 2008)