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Sara Jamshidi* (sxj937@psu.edu) and **Jason Morton**. *A distributed, asynchronous Buchberger's algorithm.*

We present a distributed version of Buchberger's algorithm for faster computation of a Groebner basis. It differs from prior work in two key ways: (1) the method is entirely asynchronous and (2) there is no limitation on the number of threads in use. We present the algorithmic design, discuss the trade-offs and compute some examples. (Received February 15, 2018)