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J Ding* (jiudin@gmail.com), 14 SUMMER PLACE, HATTIESBURG, MS 39402, and **C Jin**, Department of Mathematics, Zhejiang Sci-Tech University, Hangzhou, Zhejiang 310018, Peoples Rep of China. *Estimating invariant measures of random maps via maximum entropy method.*

The maximum entropy principle was proposed by physicist Jaynes in statistical physics for the recovery of density functions with finitely many known moments with respect to given moment functions. We apply this principle together with the idea of finite elements to compute the density function of an absolutely continuous invariant measure associated with a random map defined on the unit interval. Convergence will be proved and numerical examples will also be presented. (Received August 27, 2018)