

1075-65-6

**J. Ding\***, Department of Mathematics, University of Southern Mississippi, Hattiesburg, MS 39406, and **N. Rhee**, Department of Mathematics and Statistics, University of Missouri at Kansas City, Kansas City, MO 64110. *On the BV-Norm convergence of a piecewise linear projection method for Markov operators.*

Using linear algebra and variation arguments, we prove the BV-norm convergence for a piecewise linear Galerkin projection method for computing stationary densities of Markov operators that satisfy the Lasota-Yorke inequality. We also give a convergence rate analysis under the BV-norm. (Received May 03, 2011)