962-60-867   **Joseph Glover*** (`glover@math.ufl.edu`), Department of Mathematics, University of Florida, Gainesville, FL 32611. *Decomposing potential densities of Markov chains with raw time changes.* Preliminary report.

Little is known about the algebraic structure of the set of potential densities of Markov chains. We use raw time changes to give some insight into this problem. Given the potential density u(x,y) of a Markov chain, we produce potentials v(x,y) and w(x,y) such that u(x,y)+I(x=y) = v(x,y)+w(x,y). If u is symmetric, then v and w can be chosen to be dual potential densities. (Received September 28, 2000)

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