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Shukhrat M Usmanov* (Shukhrat.Usmanov@yahoo.com), Ashford University, Dept of Math and Computer Science, 400, N. Bluff Blvd, Clinton, IA 52732. *Dominated Ergodic Theorem for isometries of non-commutative L_p -spaces*, $1 < p < \infty$. Preliminary report.

We prove the dominated ergodic theorem for positive invertible isometries of the non-commutative L_p -spaces associated with finite von Neumann algebras. As a corollary, we obtain the individual ergodic theorem for such isometries. (Received September 18, 2009)