1014-46-860 Genady Ya Grabarnik (genady@us.ibm.com), IBM T.J. Watson Research Center, 19 Skyline Drive, Hawthorne, NY 10532, Alexander A Katz (katza@stjohns.edu), Dep. of Math & CS, St. John's University, DaSilva Hall 314, Staten Island, NY 10301, and Laura Shwartz* (lauralsh@hotmail.com), Dep. of Mathematical Sciences, University of South Africa, P.O.Box 392, 0003 Pretoria, South Africa. On superadditive ergodic type theorem in non-associative Segal-Dixmier Lp-space (for finite p > 1) affiliated with a semi-finite JBW-algebra.

Let T be a positive kernel in a Lp-space (for finite p > 1) E affiliated with a semi-finite JBW-algebra A with a faithful normal semi-finite trace t. Let (S(n), n > 0) be a superadditive process in E, that satisfies a condition that the limit of the infimum of the Lp-norm of the averages of the sums of the expressions (S(i) - T(S(i-1))) is bounded. Then we prove that the limit of averages of S(n) exists t-almost everywhere in E. (Received September 25, 2005)