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Genady Ya. Grabarnik (genadyg@hotmail.com), York College, CUNY, 94 - 20 Guy R. Brewer Blvd., Dep. of Math. & Comp. Studies, Jamaica, NY 11451, Alexander A. Katz* (katza@stjohns.edu), St. John's University, Dep. of Math & CS, 300 Howard Avenue, DaSilva 314, Staten Island, NY 10301, and Laura Shwartz (lshwart@us.ibm.com), IBM T.J. Watson Research Center, 19 Skyline Drive, Hawthorne, NY 10532. On a reduction method for nonassociative L_p-spaces.

Following ideas of Haagerup, Junge and Xu we consider the reduction of problems on general nonassociative L_p -spaces to the corresponding ones on those associated with finite JBW algebras. As it was in the case of von Neumann algebras, the main tool is an analogy of an unpublished result of Haagerup which approximates any noncommutative L_p -space by tracial ones. We show that under some natural conditions a map between two JBW-algebras extends to the crossed products of their enveloping von Neumann algebras by a locally compact abelian group or to their nonassociative L_p -spaces. (Received September 22, 2009)