1154-46-1957 **Sofya S Masharipova*** (ssm57@pitt.edu), 450 Schoolhouse Road, Johnstown, PA 15904, and **Shukhrat M Usmanov** (susmanov@concord.edu), P.O.Box 1000 F2, Concord University, Athens, WV 24712. *Theorem of isomorphism and theorem of reduction for real non-commutative L_p-spaces.* Preliminary report.

Non-commutative real valued L_p-spaces, $1 \leq p < \infty$, associated with real W^*-algebras of arbitrary types, are constructed. For real algebras of type III we use the scheme of construction of non-commutative L_p-spaces, given by U. Haagerup. Some non-trivial examples of real valued non-commutative L_p-spaces are considered. The theorem of isomorphism for real non-commutative L_p-spaces is proven. Also, the theorem of approximation of real valued L_p-spaces built on real W^*-algebras of type III by real L_p-spaces constructed on finite real W^*-algebras (the reduction theorem) is obtained. (Received September 16, 2019)