Description of Derivations on Locally Measurable Operator Algebras of Type I∗

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Presented by Bill Johnson Received October 18, 2007

Abstract: Given a type I von Neumann algebra M let LS(M) be the algebra of all locally measurable operators affiliated with M. We give a complete description of all derivations on the algebra LS(M). In particular, we prove that if M is of type I∞ then every derivation on LS(M) is inner.

Key words: von Neumann algebras, non commutative integration, measurable operator, locally measurable operator, Hilbert–Kaplansky module, type I algebra, derivation, inner derivation.

AMS Subject Class. (2000): 46L57, 46L50, 46L55, 46L60.

References


∗This work is supported in part by the DFG 436 USB 113/10/0-1 project (Germany) and the Fundamental Research Foundation of the Uzbekistan Academy of Sciences.
