# 2-LOCAL DERIVATIONS ON ALGEBRAS OF LOCALLY MEASURABLE OPERATORS

SHAVKAT ABDULLAEVICH AYUPOV[1], KARIMBERGEN KUDAYBERGENOV[2*] AND AMIR ALAUADINOV[3]

Communicated by Z. Lykova

ABSTRACT. The paper is devoted to 2-local derivations on the algebra $LS(M)$ of all locally measurable operators affiliated with a type I$_\infty$ von Neumann algebra $M$. We prove that every 2-local derivations on any $*$-subalgebra $\mathcal{A}$ in $LS(M)$, such that $M \subseteq \mathcal{A}$, is a derivation.

[1] INSTITUTE OF MATHEMATICS, NATIONAL UNIVERSITY OF UZBEKISTAN, 100125 TASHKENT, UZBEKISTAN AND THE ABDUS SALAM INTERNATIONAL CENTRE FOR THEORETICAL PHYSICS (ICTP), TRIESTE, ITALY
    E-mail address: sh_ayupov@mail.ru

[2] DEPARTMENT OF MATHEMATICS, KARAKALPAK STATE UNIVERSITY, CH. ABDIROV 1, 230113, NUKUS, UZBEKISTAN
    E-mail address: karim2006@mail.ru

[3] INSTITUTE OF MATHEMATICS, NATIONAL UNIVERSITY OF UZBEKISTAN, 100125 TASHKENT, UZBEKISTAN
    E-mail address: amir_t85@mail.ru