

Compact and “compact” operator over Hilbert C^* -module

Zlatko Lazović¹

¹Faculty of Mathematics, University of Belgrade, zlatkol@matf.bg.ac.rs

We construct a topology on the standard Hilbert module $H_{\mathcal{A}}$ over a unital C^* -algebra and topology on $H_{\mathcal{A}}^{\#}$ (the extension of the module $H_{\mathcal{A}}$ by the algebra \mathcal{A}^{**}) such that any “compact” operator, (i.e., any operator in the norm closure of the linear span of the operators of the form $z \mapsto x \langle y, z \rangle$, $x, y \in H_{\mathcal{A}}$ (i.e., $z \mapsto x \langle y, z \rangle$, $x, y \in H_{\mathcal{A}}^{\#}$)) maps bounded sets into totally bounded sets.

References

- [1] D. J. Kečkić, Z. Lazović, Compact and “compact” operators on the standard Hilbert module over a W^* algebra, Ann. Funct. Anal.