BANACH WEAK TOPOLOGY ON HILBERT C*–MODULES

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Abstract. In this paper we study the Banach weak topology on Hilbert C*-modules. For a Hilbert C*-module, we show that every sequence that is convergent in the weak module topology generated by the inner product is also convergent in the Banach weak topology generated by continuous linear functionals and the converse is true for the Hilbert C*-modules that their underlying C*-algebras are either of the form of a c_0-direct sum of matrices or of the form of a finite-dimensional matrix algebra.

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