

Year: 2018

Vol.: 92

Fasc.: 3-4

Title: On vector-valued Banach limits with values in $\mathcal{B}(\mathcal{H})$

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It is shown that all vector-valued Banach limits with values in the algebra of all bounded linear operators on a complex Hilbert space are induced by usual complex-valued Banach limits. As an application, we show that the notion of almost convergence for sequences of bounded linear operators on an infinite dimensional Hilbert space cannot be characterized by using vector-valued Banach limits.

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