

SOME TOPOLOGICAL PROPERTIES OF THE SPACES OF ALMOST
NULL AND ALMOST CONVERGENT DOUBLE SEQUENCES

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Abstract

Let \mathcal{C}_{f_0} and \mathcal{C}_f denote the spaces of almost null and almost convergent double sequences, respectively. We show that \mathcal{C}_{f_0} and \mathcal{C}_f are BDK-spaces, barrelled and bornological but they are not monotone and so not solid. Additionally, we establish that both of the spaces \mathcal{C}_{f_0} and \mathcal{C}_f include the space \mathcal{BS} of bounded double series.

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