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*M-weak and L-weak compactness of b-weakly compact operators*

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**Abstract:** We characterize Banach lattices under which each b-weakly compact (resp. b-AM-compact, strong type (B)) operator is L-weakly compact (resp. M-weakly compact).

**Keywords:** b-weakly compact operator; b-AM-compact operator; strong type (B) operator; order continuous norm; positive Schur property

**AMS Subject Classification:** 46A40, 46B40, 46B42

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