On Grothendieck's compactness principle

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The compactness principle proved by Grothendieck in 1955 states that every norm compact subset of a Banach space is contained in the closed convex hull of a norm null sequence. We give an overview of some further developments, including related compactness principles for the weak topology and for the Mackey dual topology. Then we discuss in detail the compactness principle for the absolute weak topology in Banach lattices proved recently by the lecturer in a joint work with J. L. P. Luiz and V. C. C. Miranda.