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MR1173374 (93m:46086) 46L70 (32M99 46B20 46G20 46H70) Stachó, L. L. (H-SZEG-B)

On the algebraic classification of bounded circular domains.

Proc. Roy. Irish Acad. Sect. A 91 (1991), no. 2, 219–238.

In this paper the author solves the difficult problem of describing, via algebraic and topological axioms, the (partially defined) Jordan triple products that arise from the unit ball of an arbitrary complex Banach space. The key extra condition which is needed in the case of partial triples (in addition to similar hypotheses to those needed for JB^* -triples) is a "commutativity" condition $\{\{za^*z\}b^*z\} = \{za^*\{zb^*z\}\}$.

Since every complex Banach space gives rise to an algebraic structure of a partial triple, the concept has a number of potential applications and, indeed, some actual applications have already been found. The scope for applications is however limited by the fact that the partial triples arising from some Banach spaces (e.g., L^p) are trivial.

Reviewed by Richard M. Timoney

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Citations

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