

B. Aupetit, **Trace and spectrum preserving linear mappings in Jordan-Banach algebras**, *Monatsh. Math.*, 125 (1998), no. 3, 179–187.

Abstract

In the first section we define the trace on the socle of a Jordan-Banach algebra in a purely spectral way and we prove that it satisfies several identities. In particular this trace defines the Faulkner bilinear form. In the second section, using analytic tools and the properties of the trace, we prove that a spectrum preserving linear mapping from J onto J' , where J and J' are semisimple Jordan-Banach algebras, is not far from being a Jordan isomorphism. It is in particular a Jordan isomorphism if J' is primitive with non-zero socle.