

Generalised Triple Homomorphisms and Derivations

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Abstract. We introduce generalised triple homomorphism between Jordan Banach triple systems as a concept which extends the notion of generalised homomorphism between Banach algebras given by K. Jarosz and B.E. Johnson in 1985 and 1987, respectively. We prove that every generalised triple homomorphism between JB^* -triples is automatically continuous. When particularised to C^* -algebras, we rediscover one of the main theorems established by B.E. Johnson. We shall also consider generalised triple derivations from a Jordan Banach triple E into a Jordan Banach triple E -module, proving that every generalised triple derivation from a JB^* -triple E into itself or into E^* is automatically continuous.