Mazur-Ulam property of JB*-algebras

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JB*-algebras are generalizations of C*-algebra, exchanging the not necessarily commutative setting of associative algebras for commutative but not necessarily associative setting of Jordan algebras. In the paper behind this poster, we present a proof that unital JB*-algebras have Mazur-Ulam property, i.e. whenever X is a unital JB*-algebra, Y is a Banach space, and T is an isometry of unit sphere $S(X)$ of X onto unit sphere $S(Y)$ of Y, then T can be extended to a linear isometry mapping X onto Y. To prove this we had to discover some new properties of JB*-algebras. Probably the most interesting one of them says that if X is a unital JB*-algebra and e is a minimal tripotent in the bidual $X**$, then there is a self-adjoint element h in X such that $e \leq \exp(ih)$.

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