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Atomic decomposition of real JBW*-triples. (English)

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A real JB*-triple is a closed real subtriple of a (complex) JB*-triple, and a real JBW*-triple is a real JB*-triple the canonical hermitification of which is a (complex) JBW*-triple. In the complex case, JBW*-triples split into the direct sum of two w^*-closed ideals, one of them is free of atoms and the other (the w^*-closed linear hull of all atoms) is a direct sum of a family of Cartan factors. In the present paper the authors provide an analogue of this decomposition for real JBW*-triples.
Reviewer's remark: Actually, the atomic part of any (real or complex) JBW*-triple coincides with the w^*-closure of its socle, and the non-atomic part is precisely the annihilator of the socle.

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Keywords : atomic decomposition; real JB*-triple; real JBW*-triple; w^*-closed ideals; Cartan factors; atomic part; socle; annihilator
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