

SPLIT *HOM*-LEIBNIZ COLOR 3-ALGEBRAS

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We introduce and study the class of split regular *Hom*-Leibniz color 3-algebras and the class of split Leibniz color 3-algebras with an automorphism. These classes are natural extensions such previously studied classes as split Leibniz 3-algebras, split regular *Hom*-Lie color algebras, and many others. We establish a 1 – 1 correspondence between the classes of split regular *Hom*-Leibniz color 3-algebras and the class of split Leibniz color 3-algebras with an automorphism and describe their structure. Particularly, we show that an arbitrary algebra T of one of these two classes is of the form $T = U + \sum I_j$ with U a certain subspace of T and each I_j an ideal of T such that $[T, I_j, I_k] + [I_j, T, I_k] + [I_j, I_k, T] = 0$ for $j \neq k$.

REFERENCES:

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