

A CLASSIFICATION OF 2-DIMENSIONAL ENDO-COMMUTATIVE STRAIGHT ALGEBRAS OF TYPE I

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ABSTRACT. In this paper, we provide a complete classification of 2-dimensional endo-commutative straight algebras of type I over any field. An endo-commutative algebra is a non-associative algebra in which the square mapping preserves multiplication. Type I denotes a distinguishing characteristic of its structure matrix of rank 2. We list all multiplication tables of these algebras up to isomorphism.