

Cohomology spaces of low dimensional complex associative algebras

ABSTRACT

In this paper, we calculate cohomology groups of low-dimensional complex associative algebras. The calculations are based on a classification result and description of derivations of low-dimensional associative algebras obtained earlier. For the first cohomology group, we give basic cocycles up to inner derivations. We also provide basic coboundaries for the second cohomology groups for low-dimensional associative algebras (including both unital and non unital).

Keywords: Cohomology spaces; Low dimensional complex associative algebras; Basic cocycles
