Journal of Lie Theory 25 (2015) 535–552

I. Hernández
Instituto de Matemática e Estatística, Universidade de So Paulo, So Paulo, Brasil
isabelie.hdez@gmail.com

Classification of Lie Superalgebras Supported over a Reductive Lie Algebra with One-Dimensional Center and a Simple Lie Algebra as a First Derived Ideal

It is the aim of this work to provide a concrete list of representatives of the isomorphism classes of finite-dimensional Lie superalgebras $\mathfrak{g} = \mathfrak{g}_0 \oplus \mathfrak{g}_1$ supported over a reductive Lie algebra $\mathfrak{g}_0 = \mathfrak{m} \oplus \mathfrak{z}$, where $\mathfrak{m}$ is a simple Lie algebra and $\mathfrak{z}$, the center of $\mathfrak{g}_0$, is one-dimensional. The classification given here does not impose the extra hypothesis that $\mathfrak{g}_1$ be a completely reducible $\mathfrak{g}_0$-module.

Keywords: Lie superalgebras, reductive Lie algebras.

MSC: 17B20, 17B70; 81R05