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Cristina Draper* (cdf@uma.es), Escuela de Las Ingenierías, Dpto. Matemática Aplicada, Universidad de Málaga (Ampliación Teatinos), 29071 Málaga, Spain, and **Alberto Elduque** and **Cándido Martín**. *Gradings on exceptional Lie superalgebras*.

We determine all the fine group gradings on the classical exceptional Lie superalgebras $G(3)$, $F(4)$ and the family $D(2, 1; \alpha)$. The main tool is the knowledge of the automorphism groups of such superalgebras [1].

In order to provide nice descriptions of these gradings, we make use of different models of our Lie superalgebras, thus relating their gradings to gradings on some other nonassociative algebras: the Lie algebra \mathfrak{sl}_2 , the Jordan superalgebras K_{10} (Kac's superalgebra) and D_α 's, and the octonion algebra.

Our work extends previous results in [2], which deals with group gradings of the orthosymplectic Lie superalgebras, and it complements the recent work by a number of authors on gradings on simple Lie and Jordan algebras.

Bibliography:

[1] Grantcharov, D.; Pianzola, A. *Automorphisms and twisted loop algebras of finite dimensional simple Lie superalgebras*. Int. Math. Res. Not. 2004, no73, 3937–3962.

[2] Tvalavadze, M.; Tvalavadze, T. *Group gradings on superalgebras*. Arxiv: 0609760v2. (Received September 21, 2009)