Title: Generalized derivations which extend the concept of Jordan homomorphism

Author(s): Vincenzo De Filippis and Giovanni Scudo

Let R be a prime ring, U the right Utumi quotient ring of R, C its extended centroid, I a non-zero right ideal of R, $f(x_1, \ldots, x_n)$ a non-central multilinear polynomial over C, F, G two generalized derivations of R, $m \geq 1$ a fixed integer. Denote $f(I)$ the set of all evaluations of the polynomial $f(x_1, \ldots, x_n)$ in I. If $F(u^m) = G(u)^m$, for any $u \in f(I)$, then we describe all possible forms of F and G.

Address:
Vincenzo De Filippis
Department of Mathematics
and computer science
University of Messina
Messina
Italy
Address:
Giovanni Scudo
Department of Mathematics
and computer science
University of Messina
Messina
Italy