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**Topics on Hyperbolic Function Theory
in Geometric Algebra with a Positive Signature**

CMFT 10 No.1 (2010), 249–263. [ISSN 1617-9447]

Abstract. In this paper we study geometric algebra valued null solutions of the equation

$$D_\ell f - \frac{k}{x_0} Q_0 f = 0$$

on the upper half $\mathbb{R}^{n+1} \cap \{x_0 > 0\}$, where D_ℓ is the Dirac operator and Q_0 is a projection-type mapping. Null solutions are called hypergenic functions. We will also study their local properties and integral representations.

Keywords. Hypergenic function, Cauchy formula, Borel-Pompeiu formula, multivector function.

2000 MSC. 30G35, 30A05.

Received. March 7, 2009, in revised form December 9, 2009.

Published online. February 6, 2010.