A functional calculus based on axially monogenic functions

I. Sabadini

We will recall the notion of slice monogenic functions and some of their properties. In particular, we will discuss the main features of the analogue of the Cauchy kernel. Then we will state an integral form of the Fueter mapping theorem, which allows to associate to any slice monogenic function an axially monogenic function. We will use this integral transform to define a functional calculus for n-tuples of linear operators.

The talk is based on a joint work with F. Colombo and F. Sommen.