

Slice topology and some new results on hyperholomorphic functions

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Slice hyperholomorphic functions can be introduced over various algebras, in particular on the quaternions and Clifford algebras, and they can be successfully applied to obtain a functional calculus for quaternionic linear operators or to n -tuples of linear operators.

Recently, it has been observed that a natural topology to study these functions is the so-called slice topology, namely a topology that takes into account that the domain can be seen as the union of complex planes. This approach opens the way to new results, especially on the domains of slice hyperholomorphy.

On the other hand, the functional calculus for slice hyperholomorphic functions can be used to further enlarge the domain of definition of these functions, and we shall discuss the case of Clifford algebras.

This submission is for a contributed session