

Slice Regular Quaternionic Manifolds.

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In recent years, Slice Regular Quaternionic Manifolds have been introduced and studied by many authors, after the seminal definition of Slice Regular Function given by G. Gentili and D.C. Struppa in 2006-2007.

Slice Regular Quaternionic Manifolds have caught the attention because they have more structure than the real ones but they are less docile than the complex ones, due to the lack of commutativity in the product of two quaternionic numbers.

In this talk we will focus mainly on the two following examples:

- 1) Quaternionic Tori , their slice regular automorphisms group and their Moduli Space;
- 2) Quaternionic Hopf Surfaces , their slice regular automorphisms group and their deformations.

In both cases we will present the state of the art results and also some open problems.