Caterina Stoppato

Università degli Studi di Firenze

Function theory over quaternionic slice domains

Abstract

Slice regular functions, introduced in 2006, are a successful quaternionic analog of holomorphic functions of one complex variable. They are traditionally only studied over domains that are symmetric with respect to the real axis. This tradition initiated after some foundational results were published in 2009, such as the Representation Formula for axially symmetric slice domains. More recently, new results motivated the study of slice regularity over domains that are not axially symmetric. First some new tools have been set up, such as a Local Representation Formula. Then the new study has been addressed, showing new interesting phenomena. This is joint work with Graziano Gentili.