

**Abelian varieties and Riemann surfaces with generalized quaternion group
action**

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Abstract:

In this talk we consider compact Riemann surfaces (or complex curves) and complex abelian varieties possessing a group of automorphisms isomorphic to a generalized quaternion group. We shall discuss several interrelated aspects such as isogeny decompositions, representations of groups, classification of actions, the so-called 'genus-zero' actions, uniparametric families and period matrices, amongst others.

This is a joint work with Ángel Carocca and Rubí E. Rodríguez.