The uncovering of fibers’ Mumford system

Abstract:
This talk is dedicate to the description of the fibers resulting from the Mumford system of degree g>0. Each fiber is linked to a hyperelliptic curve; we will focus our description more specifically to the ones linked to singular hyperelliptic curves. These fibers are arranged hierarchically by stratification which allows us to provide a geometrical as well as an algebraic understanding of fibers that result in an isomorphism between a fiber and a part of a commutative algebraic group associated to its singular hyperelliptic curves in other words the generalized Jacobian.