

Speaker: Umberto Zannier

Talk: Specialization theorems in Geometry and Number Theory

Abstract: Generally speaking, specialization theorems assert that a property of a family of objects which depend on parameters, remains valid for suitable sets of values of the parameters. A typical instance is the Bertini irreducibility theorem in algebraic geometry. In the talks, after giving a simple example which shows limitations of such a principle, we shall survey comparatively recent instances, especially of arithmetical nature, and concerning families of elliptic curves and abelian varieties. We shall stick to basic examples while illustrating general theorems. At the end we shall give more details on a recent result concerning abelian varieties with "generic" properties and defined over the algebraic numbers.