

“FROM ALGEBRAIC VARIETIES TO SCHEME THEORY. ”

MANUEL MÉRIDA ANGULO

Algebraic geometry is a branch of mathematics that studies geometric problems using algebraic techniques, mainly from commutative rings. One of the main objects of study are algebraic varieties, i.e., sets of zeros of a system of polynomial equations with coefficients taken in a ring or a field.

In 1960, Grothendieck extended the concept of algebraic varieties to schemes, allowing the use of different new methods and establishing strong connections with other fields such as topology and number theory. In this talk we will give an introduction about both algebraic varieties and scheme theory, explaining their relation and their role in solving some important mathematical problems.