ICM 1998, Berlin, Aug. 18–27

Abstracts of Plenary and Invited Lectures

Section:

3. Number Theory and Arithmetic Algebraic Geometry

1991 MS Classification: 11
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Determination of rational points using Dirichlet series

Study of points of finite order of elliptic curves over number fields translates into questions about rational points of modular curves. Many methods to study rational points of curves use an analysis of the group of rational points of the jacobian variety. In the case of modular curves, the results obtained in the direction of the Birch and Swinnerton-Dyer conjecture provide a particularly favorable background for such a method. In the talk, we will focus on abelian fields.