ICM 1998, Berlin, Aug. 18–27

Abstracts of Short Communications and Posters

Section:

3. Number Theory and Arithmetic Algebraic Geometry

1991 MS Classification: 11, 58, 22
Hoffmann, Werner, IAS Princeton, USA
Spectral estimates for noncompact quotients
We prove a uniform upper estimate on the number of cuspidal eigenvalues of the Γ-automorphic Laplacian below a given bound when Γ varies in a family of congruence subgroups of a given reductive linear algebraic group. Each Γ in the family is assumed to contain a principal congruence subgroup whose index in Γ does not exceed a fixed number. The bound we prove depends linearly on the covolume of Γ and has applications to the study of limit multiplicities. The result was obtained in joint work with A. Deitmar.