Advanced Studies in Pure Mathematics 30, 2001
Class Field Theory – Its Centenary and Prospect
pp. 509–536

Adele Geometry of Numbers

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Dedicated to Professors Ichiro Satake and Takashi Ono

This is a historical and expository account on adele geometry. The word *adele geometry* appeared in the lectures ([W4], 1959–1960) by A. Weil which were stimulated by works of Siegel–Tamagawa on quadratic forms. Our main concern here is to exhibit the strings of thoughts in the development of this topic originated from Minkowski's *geometry of numbers*. The subject was originally related to integral geometry and some diophantine problems, and we discuss such aspects in adele geometry on homogeneous spaces.

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Received August 28, 1998
Revised October 5, 1998