

Class Field Theory: Automorphic L-Functions

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Abstract

This is based on the talks by Yi Shan. We take a minimalist approach to the definition of automorphic L-functions and related topics. We specifically verify the Hecke L-functions are automorphic.

1 Introduction

The main reference is A. Borel's article[1] in the Corvallis collections of surveys.

2 Root Data

3 L-Groups

4 Unramified Hecke Algebras

5 Satake Isomorphisms

6 Weil Groups and L-Parameters

7 Local L-Functions

8 Local Langlands Correspondence

9 Global L-Functions

References

- [1] Armand Borel. Automorphic l-functions. In *Automorphic forms, representations and L-functions (Proc. Sympos. Pure Math., Oregon State Univ., Corvallis, Ore., 1977), Part*, volume 2, pages 27–61, 1979.