

## $p$ -ADIC $L$ -FUNCTIONS FOR $GL(n)$

A. RAGHURAM

In the early 70's Mazur and Swinnerton-Dyer constructed  $p$ -adic  $L$ -functions attached to an elliptic curve. This was generalized to attaching  $p$ -adic  $L$ -functions for cusp forms on  $GL(2)$  by Manin and others. Later this construction was generalized in two different directions: for cusp forms on  $GL(n) \times GL(n-1)$  by C.-G.Schmidt and his collaborators and students, and in another direction for cusp forms on  $GL(2n)$  which admit a Shalika model by Ash and Ginzburg. This mini-course of four lectures will be a survey of such constructions of  $p$ -adic  $L$ -functions.

### REFERENCES

- [1] Mazur, B., Swinnerton-Dyer, P.: *Arithmetic of Weil curves*. Invent. Math. 25, 1–61 (1974).
- [2] Manin, Y.: *Non-archimedean integration and Jacquet-Langlands  $p$ -adic  $L$ -functions*. Russian Math. Surveys 31, 5–57 (1976).
- [3] Kazhdan, D., Mazur, B., and Schmidt, C.-G.: *Relative modular symbols and Rankin-Selberg convolutions*. J. Reine Angew. Math., 519, 97-141 (2000).
- [4] Ash, A., and Ginzburg, D.:  *$p$ -adic  $L$ -functions for  $GL(2n)$* . Invent. Math. 116, 27–73 (1994).