p-adic Groups

Seminar / Study group

Harvard University
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We outline the classification of absolutely simple algebraic groups over non-archimedean local fields, up to strict isogeny. This is classical, and accounts of it have been written by Tits and Satake. Tits compiled tables of 'admissible indices' from which groups can be constructed. We describe Tits' tables for groups of relative rank 1 over non-archimedean fields. We also outline structure theory for groups of relative rank 1 and 2 over non-archimedean fields.

References

[PR] Platonov and Rapinchuk, *Algebraic groups and number theory*, Progress in Mathematics, Birkhauser.

[Sa] Satake, I, *Classification theory of semi-simple algebraic groups* (1971), Lecture notes in pure and applied mathematics ; v. 3.

[Ti1] Tits, J, *Reductive groups over local fields*, Automorphic forms, representations and L-functions, Proc. Symp, Pure Math **33** (Corvallis, 1979), Part 1.

[Ti2] Tits, J, *Classification of semi-simple algebraic groups*, Algebraic groups and discontinuous subgroups, Proc. Symp, Pure Math **9** (Boulder, 1966).