SOME REFERENCES ON CLASS FIELD THEORY

• On local class field theory:

J-P. Serre, Corps locaux, Hermann, Paris, 1962 (English: Local Fields, Springer)

• On local Tate duality (and much more):

J-P. Serre, Cohomologie galoisienne, Springer, 1964 (English: Galois cohomology, Springer)

See also Harari's book below.

• On Galois cohomology and the relation with central simple algebras:

P. Gille, T. Szamuely, Central simple algebras and Galois cohomology, 2nd ed., Cambridge University Press, 2017.

Also contains a treatment of the Brauer–Hasse–Noether theorem in positive characteristic.

• Textbook treatments of local and global class field theory:

D. Harari, Cohomologie galoisienne et théorie du corps de classes, EDP Sciences, 2017. (English: Galois Cohomology and Class Field Theory , Springer, 2020.)

J. Neukirch: Class Field Theory: The Bonn Lectures, Springer, 2013.

J. S. Milne, Class Field Theory, available from the author's homepage.

J. W. S. Cassels, A. Fröhlich (eds.) Algebraic Number Theory, Academic Press, 1967, especially the chapters by Serre and Tate.

The first three references rely heavily on the fourth but are often more detailed.

• The classical source for global class field theory:

E. Artin, J. Tate: Class Field Theory, Benjamin, 1967.

It seems that this is still the only place where the positive characteristic case is treated completely.

• On the history of class field theory:

K. Conrad, History of class field theory, available from the author's homepage.

P. Roquette, The Brauer–Hasse–Noether theorem in historical perspective, Springer, 2005.

Besides the historical context, explains the original proof of this central result.

• On Chebotarev's original proof of his density theorem:

H. W. Lenstra, P. Stevenhagen, Chebotarëv and his density theorem. The Mathematical Intelligencer 18 (1996), 26-37.

• A concise modern treatment of the theory of complex multiplication:

E. Ghate, Complex multiplication, in Bhandari et al. (eds.) Elliptic Curves, Modular Forms and Cryptography, pp. 85–108, Hindustan Book Agency, 2003.

• Recent progress on Hilbert's 12th problem:

S. Dasgupta, M. Kakde, Brumer-Stark units and explicit class field theory, Duke Math. J. 173 (2024), 1477-1555.