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Tchebotarev's density theorem in global fields. (Turkish summary)

Doğa Mat. **13** (1989), no. 1, 1–8.

The author gives a unified proof of the Chebotarev density theorem in a global field, i.e., an algebraic number field or an algebraic function field in one variable over a finite field. In this theorem we work with prime divisors which are unramified in a Galois extension and so in the cyclic extension over the decomposition field with respect to each of them. He considers this cyclic extension as a subfield of the maximal abelian extension of the decomposition field, and examines the L -functions associated with the characters induced from those of the maximal abelian extension. Then he obtains the density using his previous paper [*Bull. Sci. Math.* (2) **105** (1981), no. 3, 299–303; [MR0629712](#)]. For the proof of this theorem in a function field case we can refer to a paper by M. Jarden [*Math. Ann.* **261** (1982), no. 4, 467–475; [MR0682659](#)]. *Norikata Nakagoshi*