



UDC 511.3

On a Particular Equivalent of Extended Riemann Hypothesis for Dirichlet L -functions on Numerical Fields

V. A. Matveev, O. A. Matveeva

Saratov State University, Russia, 410012, Saratov, Astrakhanskaya st., 83, vladimir.matveev@gmail.com,
olga.matveeva.0@gmail.com

A condition on summatory function over a set of prime ideals for Dirichlet L -functions on numerical fields is obtained. This condition is equivalent to extended Riemann hypothesis. Analytical properties of Euler products associated with this equivalent are studied.

Key words: extended Riemann hypothesis, Dirichlet L -functions, numerical fields.

References

1. Hardy G. H., Littlewood J. E. Some problems of partitioning numbers III : On the expression of a number as a sum of primes. *Acta Mathematica*, 19232, vol. 44, pp. 1–70.
2. Kheil'bronn Kh. ζ -funktсии i L -funktсии [ζ -functions and L -functions]. *Algebraicheskaia teoriia chisel* [Algebraic number theory], Moscow, Mir, 1969, pp. 310–346 (in Russian).