

Tsfasman, M. A.

Asymptotic behaviour of the Euler-Kronecker constant. (English) [Zbl 1185.11070](#)

Ginzburg, Victor (ed.), Algebraic geometry and number theory. In Honor of Vladimir Drinfeld's 50th birthday. Basel: Birkhäuser (ISBN 978-0-8176-4471-0/hbk). Progress in Mathematics 253, 453-458 (2006).

This is an appendix to *Y. Ihara's* paper [Prog. Math. 253, 407-451 (2006; [Zbl 1185.11069](#))]. Let K be a number field with discriminant d_K and Euler-Kronecker constant γ_K . Under the generalized Riemann hypothesis the author proves that

$$\liminf_K \frac{\gamma_K}{\log \sqrt{|d_K|}} \geq -0.26049\dots$$

He produces examples of class-field towers, showing that

$$\liminf_K \frac{\gamma_K}{\log \sqrt{|d_K|}} \leq -0.17849\dots$$

For the entire collection see [[Zbl 1113.00007](#)].

Reviewer: [Florin Nicolae \(Berlin\)](#)

MSC:

[11R42](#) Zeta functions and L -functions of number fields

[11R47](#) Other analytic theory

Cited in **3** Reviews
Cited in **8** Documents

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