## Colloquium

## The Euler-Kronecker constant of a number field

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**Abstract:** Following Ihara, we define an invariant g(K) for each algebraic number field which for the rational numbers is Euler's constant and for imaginary quadratic fields is a constant studied by Kronecker. This invariant reflects subtle aspects of the arithmetic of the field, and also is (conjecturally) related to periods of Abelian varieties with complex multiplication.

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MATHEMATICS AND COMPUTER SCIENCE EMORY UNIVERSITY