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Wang, Shuhong

The early history of algebraic number theory.

J. Northwest Univ., Nat. Sci. Ed. 40, No. 6, 1120-1123 (2010).

Summary: This paper discusses the early history of algebraic number theory by literature research and concept analyzing, analyzes the key problem of unique factorization by the law of higher reciprocity and Fermat last theorem. Results indicate that algebraic number theory develops from integer theory to complex integer theory and then from complex integer theory to widely-applied algebraic number theory. Algebraic number theory arises with the introduction of some new algebraic tools such as complex integers and ideal number.

Classification: A30

Keywords: integer theory; complex integer theory; law of higher reciprocity; unique factorization; algebraic number theory