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*Rigorous Computation of Fundamental Units in Number Fields*

In this talk, we will discuss currently available rigorous methods for computation of fundamental units in an algebraic number field, as well as methods which verify that a given set of units is a set of fundamental units. By rigorous, we mean that the result of the computation is unconditionally correct, i.e. does not depend on any kind of unproven hypothesis. We will present results on the theoretical runtime complexity of such methods as well as their behaviour in practice.