Recent progress in Kummer theory

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Kummer theory is the part of number theory that concerns field extensions obtained by adding radicals (excluding the case of adding p-th roots in characteristic p). The classical results of this theory are common knowledge among number theorists. Our main contribution consists in studying the degrees of such extensions for number fields in both a theoretical way (giving a parametric formula for the degree) and an algorithmic way (for number fields of small degree). We present joint works with Debry, Hörmann, Perissinotto, Sgobba, and Tronto.