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*Malle's Conjecture for octic  $D_4$ -fields*

We consider the family of normal octic fields with Galois group  $D_4$ , ordered by their discriminant. In forthcoming joint work with Arul Shankar, we verify the strong form of Malle's conjecture for this family of number fields, obtaining the order of growth as well as the constant of proportionality. In this talk, we will discuss and review the combination of techniques from analytic number theory and geometry-of-numbers methods used to prove this and related results.