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Shapes and asymptotics in number theory

In this talk we investigate a possible connection between the distribution of shapes of number fields and Malle's conjecture. Specifically we will discuss joint work with Rob Harron in which we study the shape of non-Galois sextic fields: i.e. the family of sextic fields which have Galois group $C_3 \wr C_2$ and which were the first counter example to Malle's conjecture. We describe our distribution results within this family and show how they relate to the asymptotics of these fields.