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Malle's conjecture for compositum of number fields.

Malle's conjecture is a conjecture on the asymptotic distribution of number fields with bounded discriminant. We propose a general framework to prove Malle's conjecture for compositum of number fields based on known examples of Malle's conjecture and good uniformity estimates. By this method, we prove Malle's conjecture for $S_n \times A$ number fields for $n = 3, 4, 5$ and A in an infinite family of abelian groups. As a corollary, we show that Malle's conjecture is true for $C_3 \wr C_2$ in its S_9 representation, whereas its S_6 representation is the first counter example of Malle's conjecture given by Klüners. (Received February 18, 2018)