The inverse problem of Galois theory

The inverse problem of Galois theory asks whether for every finite group G there exists an epimorphism $\mathrm{Gal}(\mathbb{Q}) \to G$, where $\mathrm{Gal}(\mathbb{Q})$ is the absolute Galois group of $\mathbb{Q}$. This problem is far from being solved. We give an overview talk about known partial results, emphasizing the so-called rigidity method of Thompson, Matzat and Malle.