Exploring the Oberwolfach problem through solutions with non trivial automorphism group

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The Oberwolfach Problem, originally posed by Ringel in 1967, asks for a decomposition of complete graphs into 2-factors of prescribed isomorphism type. A recent asymptotic result (2021, Glock et al.) guarantees the existence of solutions provided that the total number of vertices is sufficiently large, yet, the possibility of determining explicit and constructible solutions for every configuration remains an open problem. Searching for solutions with a non trivial automorphism group may aid in constructing explicit examples, both in the classical setting and in variants obtained by adding or removing a repeatd $1-$factor from the complete graph.