
Hopf25

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Parallel sessions, Forum E
Tuesday, April 22, 2025
14h30-14h55

Hopf-Galois structures and skew braces

In 1987, Greither and Pareigis showed that a Galois (or just separable) extension of fields may admit multiple Hopf-Galois structures, and that these can be described in terms of group theory. Over the last decade, this area has received new impetus because of its connection with (skew) braces, which are algebraic objects related to set-theoretic solutions of the Yang-Baxter Equation. In this talk, I will outline how classification/enumeration problems for skew braces can be approached via Hopf-Galois structures, and vice versa, and discuss some related open problems.