

On split extensions of hoops

Federica Piazza (federica.piazza07@unipa.it)

Dipartimento di Matematica e Informatica, Università degli Studi di Palermo,
Via Archirafi 34, 90123 Palermo, Italy.

Abstract. The purpose of this talk is to analyse the correspondence between split extensions of hoops with strong section and the associated strong external actions. We will study this correspondence in some relevant subvarieties of the variety of hoops, showing that the equivalence between the two constructions is preserved in each case. Moreover, we will discuss how this correspondence relates to Rump's semidirect product construction for L-algebras.

References

- [1] M. Mancini, G. Metere and F. Piazza, *On actions and split extensions in varieties of hoops: the case of strong section*, submitted, preprint [arXiv:2510.06886](https://arxiv.org/abs/2510.06886).