On noncommutative bounded factorization domains and prime rings

Daniel Smertnig*, Jason P. Bell, Ken Brown and Zahra Nazemian

University of Graz University of Waterloo University of Glasgow University of Graz

E-mail: daniel.smertnig@uni-graz.at

A domain R is a bounded factorization (BF) domain if for every $0 \neq a \in R$, there exists $\lambda(a) \in \mathbb{N}_0$ such every factorization of a into atoms has length at most $\lambda(a)$.

It is well-known that commutative noetherian domains (and more generally, Mori domains) are BF-domains. The situation for noncommutative noetherian domains and prime rings is less clear, we present several recent sufficient conditions.

References

[1] https://doi.org/10.1016/j.jalgebra.2023.01.023