

# MATEMATIČNI KOLOKVIJI

## On non-unique factorizations in noncommutative rings

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Over the last decades, a comprehensive factorization theory has been developed in commutative domains and cancellative monoids. In large classes of rings, this theory yields satisfying answers to questions about uniqueness and non-uniqueness of factorizations through the use of transfer homomorphisms. At its algebraic core, this technique relates arithmetical properties of rings and monoids to algebraic invariants. This provides a machinery to study phenomena of non-unique factorizations with methods from additive combinatorics. In the last years part of this theory has been successfully extended to noncommutative settings. In the talk I will survey some of the key phenomena of factorizations in noncommutative domains and prime rings, and relate them to the (more well-known) commutative situation.



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