

PARTITIONING PROBLEM AND DEFENSIVE ALLIANCES IN THE CONTEXT OF ZERO-DIVISOR
GRAPHS OF RINGS

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This is joint work with **Driss Bennis**

The partitioning of the vertex set of a graph is a well-studied problem in graph theory. It involves dividing the set of vertices of a graph into disjoint subsets or partitions, based on specific criteria or constraints. In this talk, we are interested in partitioning the zero-divisor graph of a commutative ring into global defensive alliances. This problem has been well investigated in graph theory. Here, we connected it with the ring theoretical context. We characterize various finite commutative rings for which the zero-divisor graph is partitionable into global defensive alliances. We also present several examples to illustrate and delimit the scope of the established results.

REFERENCES

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