Codes from zero-divisor super-λ graph

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In coding theory, super-λ graphs were used to build linear codes. Thus, in order to see whether the zero-divisor graphs might be useful into this context, it is natural to study when zero-divisor graphs of some non elementary ring constructions are super-λ graphs. In this presentation, we show that there are various classes of rings whose zero-divisor graphs are super-λ. We apply these results to determine parameters of some linear codes associated to zero-divisor graphs.

References

[1] D. Bennis, R. L'hamri, and K. Ouarghi. Zero-divisor super-λ graphs. Sao Paulo J. Math. Sci. **16** (2022), 1–17.