

Symmetric closure in modules and rings

Mehrdad Nasernejad

Artois University, Laboratoire de Mathématique de Lens (LML), France

a joint work with

André Leroy

Artois University, Laboratoire de Mathématique de Lens (LML), France

Abstract

In this talk, which is based on [3], we first introduce both for modules and rings classes of elements that are strongly connected to commutativity classes as defined in [1] and [2]. We next define a graph structure on the classes leading to a notion of distance for elements of a class.

Keywords

Symmetric Closure, Commutatively closed sets, Dedekind-finite rings, Derived group, Diameter.

References

- [1] M. Abdi and A. Leroy, *Graphs of commutatively closed sets*, Linear Multilinear Algebra **70** (2022), no. 21, 6965–6977.
- [2] D. Alghazzawi and A. Leroy, *Commutatively closed sets in rings*, Comm. Algebra **47** (2019), no. 4, 1629–1641.
- [3] A. Leroy and M. Nasernejad, *Symmetric closure of modules and rings*, 2023, Communications in Algebra (doi: 10.1080/00927872.2023.2240888).