

New results in graph automorphism theory

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Graph automorphism theory is an important branch of group representation theory dealing with group representations on binary relations (see [1], [2]). Although it has been advanced considerably in the last decades, there are unresolved questions related to structure and minimal graphs having given automorphism groups. We exhibit small graphs having alternating automorphisms groups and propositions related to semidirect automorphism groups.

References

- [1] L. Babai (1995), Automorphism groups, isomorphism, reconstruction, In Graham, Ronald L.; Grottschel, Martin; Lovasz, Laszlo, Handbook of Combinatorics I, North-Holland, pp. 1447-1540.
- [2] P. Cameron (2004) Automorphisms of graphs, in Topics in Algebraic Graph Theory (ed. L. W. Beineke and R. J. Wilson), Cambridge Univ. Press, Cambridge, (ISBN 0521801974), pp.137-155.