

On Lie symmetries of linear systems of second-order ordinary differential equations

We review our recent results on transformation properties of normal linear systems of second-order ordinary differential equations with an arbitrary number of dependent variables under several appropriate gauges of the arbitrary elements parameterizing these systems. We also present principal properties of Lie symmetries of the systems under consideration and outline ways for completely classifying these symmetries.

1. Boyko V.M., Lokaziuk O.V. and Popovych R.O., Admissible transformations and Lie symmetries of linear systems of second-order ordinary differential equations, *J. Math. Anal. Appl.* **539** (2024), 128543, 51 pp., arXiv:2105.05139.

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