

Applications of equivalence and symmetry point transformations in studying PDEs

Olena Vaneeva

After brief review of basic notions and properties of Lie symmetries, the statement of group classification problem will be given [1,2]. The role of equivalence and admissible transformations in successful solving such problems will be shown using the illustrative examples of second order (reaction-diffusion) and/or third order (mKdV type) evolution equations [3,4].

REFERENCES

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- [4] Vaneeva O.O., Popovych R.O. and Sophocleous C.: *Enhanced group analysis and exact solutions of variable coefficient semilinear diffusion equations with a power source*, Acta Appl. Math. 106 (2009), 1-46.