

**LIE GROUP METHOD OF INTEGRATION OF
NON-LINEAR ORDINARY DIFFERENTIAL
EQUATIONS**



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ABSTRACT

In this research report, we present the Lie group-theoretical method of solving non-linear ordinary differential equations (ODEs) by applying the symmetries of those equations. For the application of this method the first and second-order non-linear ODEs are considered. Symmetries of the equations are derived and the corresponding group-invariant solutions are constructed.

Contents

ABSTRACT	ii
DECLARATION	iii
DEDICATION	iv
ACKNOWLEDGEMENTS	v
Contents	vi
Introduction	1
1 Theory of Lie Group Analysis of Ordinary Differential Equations	3
1.1 Transformations in \mathbb{R}^2	3
1.2 Group of Extended Transformations	7
1.2.1 (Transformations of The Derivatives $y^{(k)}$)	7
1.3 Symmetries of Ordinary Differential Equations	10
1.4 Notions on Lie algebra	11
1.5 Methods of Symmetry Reduction of First and Higher-order ODEs	13
1.5.1 Reduction of The Order by One	13
1.5.2 Consecutive Reduction of order	13
2 Application	14
2.1 Symmetry of a first-order ODE	14
2.2 Integration of the ODE (2.1.1) using its symmetry	17
2.3 Lie Symmetries and Integration of a Second-Order ODE	21
Conclusion	27
Bibliography	28