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

BY

THAVANAYAGAM EALASUKANTHAN

DEGREE OF BACHELOR OF SCIENCE (SPECIAL IN MATHEMATICS)

FACULTY OF SCIENCE
EASTERN UNIVERSITY, SRI LANKA
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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.

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