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SOLVING ORDINARY DIFFERENTIAL EQUATIONS BY SYMMETRY GROUPS

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Abstract

Sophus Lie proposed group-theoretical methods to assist the progress of solving ordinary differential equations. Lie developed algorithms to determine the existence of one-parameter group of transformations which leaves the hull of the differential equation invariant. We will mainly discuss the methods of obtaining these symmetry groups of first and second order ODE's.

Date : Friday, September 18, 2020

Time: 15:30

Place: IMBM Seminar Room, Boğaziçi University South Campus