

İTÜ



MATHEMATICS

SEMINAR

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Title: Linearization Problem via Lie Symmetries

Answer to the question: which equation can be linearized via symmetries?

Abstract: A set of differential equations involves some arbitrary parameters of independent, dependent variables and their derivatives are called "family of equations". Almost all equations in applied sciences can be written as family of equations as the behavior of certain materials, matters differ by some parameters which express the certain properties of the problem. In this talk we shall focus on the linear and nonlinear members of the same family of equations and will give a method to generate the most general mappings between each others. The method based on the "Equivalence Transformation" which is a generalized Lie group applications to the differential equations. Moreover we will look for the solutions of nonlinear equations via such transformations.

Date: 5 May 2021 Wednesday

Seminar: 14:30-15:30

Place: Zoom

<https://itu-edu-tr.zoom.us/j/92051011213?pwd=cWJpYXU3ZXNlc1ZXRRE91MjU3eVh1UT09>

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