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*Title: Lie symmetries of a class of quasilinear systems of second-order differential equations: a geometric view*

**Abstract**

We study the Lie and the Noether point symmetries of a class of systems of  $m$  second-order differential equations with  $n$  independent and  $m$  dependent variables ( $n \times m$  systems). We solve the Lie and Noether point symmetry conditions in a geometric way and determine the general form of the symmetry vector and of the Noetherian conservation laws. We prove that the point symmetries are generated by the collineations of two (pseudo)metrics, which are defined in the space of independent variables and the space of dependent variables, respectively. We demonstrate the general results in various applications of physical interests.