

Lie Symmetrical Non-Noether Conserved Quantities of Poincarè-Chetaev Equations

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Abstract: In the present paper the Lie symmetrical non-Noether conserved quantity of the Poincarè-Chetaev equations under the general infinitesimal transformations of Lie groups is discussed. First, we establish the determining equations of Lie symmetry of the equations. Second, the Lie symmetrical non-Noether conserved quantity of the equations is deduced.

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Key words: Poincarè-Chetaev equations, Lie symmetry, non-Noether conserved quantity

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