

A Generalization of Lepagean forms in Mechanics

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Abstract

Generalization of Lepagean forms in mechanics is presented. The Euler-Lagrange operator for creating representatives of classes of forms in the first order variational sequences is used. The conditions to make a description when a given differential form is or is not Lepagean are presented. The canonical part of the Lepagean forms of degree k , where $1 \leq k \leq 4$, is introduced.