

THE EXACT DISCRETE LAGRANGIAN FUNCTION ON THE LIE ALGEBROID OF A LIE GROUPOID

Juan Carlos J C Marrero
University of La Laguna, Spain
jcmarrer@ull.edu.es

In this talk, I will present a definition of the exact discrete Lagrangian function associated with a continuous regular Lagrangian function on the Lie algebroid of a Lie groupoid. Some applications on variational analysis error in this setting will also be presented. In order to define the exact discrete Lagrangian function, I will use some results on second order differential equations on the vertical bundle of a fibration. These results may be proved using classical theorems on second order differential equations.

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