

1086-VB-687 **Mara Aruguete** (aruguetem@lincolnu.edu), 701 S Providence Road, Apt 1I, Columbia, MO 65203, and **Chelsey Stephenson*** (rocking_girlz@hotmail.com), 179 County road 420, Linn, MO 65051. *Convexity Conditions of Euler-Lagrange Equations in Optimization Problems.*

In this presentation, we will mainly talk about the convexity conditions of Euler-Lagrange equations in optimization problems. Value functions with optimal control is also examined through the feedback rules, Hamilton-Jacob theory. (Received September 11, 2012)