

# Notes on Classical Mechanics

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**Abstract**

- 1 Hamilton's Principle
- 2 Generalized Coordinates
- 3 Lagrange's Equations of Motion in Generalized Coordinates
- 4 Lagrange's Equations With Undetermined Multipliers
- 5 Equivalence of Lagrange's and Newton's Equations
- 6 Essence of Lagrangian Dynamics
- 7 A Theorem Concerning the Kinetic Energy
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- 13 Some Comments Regarding Dynamical Variables and Variational Calculations in Physics
- 14 Phase Space and Liouville's Theorem
- 15 Virial Theorem