

Calculus of Variations and Optimal Control Theory

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Supplementary Materials

1. Functionals and Extremization	8. Functionals w. Higher Order Derivatives
2. Fundamental Lemma of Variational Calculus	9. Functionals w. Multiple Dependent Variables
3. Example: Shortest Path	10. Functionals w. Multiple Independent Variables
4. Example: Surface of Revolution	11. Principle of Stationary Total Potential Energy
5. First Integrals of the Euler-Lagrange Equation	12. Potential Energy of an Elastic Body
6. Delta Operator	13. Rayleigh-Ritz Method
7. Natural Boundary Conditions	14. Ritz Method and Finite Element Analysis

November 8, 2025