SPUM 101

Course: Classical mechanics

Introduction to this lecture

This lecture is an experimental lecture to estimate the value of the existence of the SLUM including can participants really have a passion for physics and physics studying, the quality of our lectures, how much could our participants learn from our lecture and the hard level of the concepts. Your feedback is really important for us to provide high-quality educational resources. The pre-lecture will include the following concepts.

Concepts

· Introduction to variation

· Hamilton principle(The least action principle)

· Euler-Lagrange equation of motion

· Virtual force & work and D'Alembert's principle

· Conservation law and symmetry

· Integration of the equation of motion

· Harmonic oscillation

· Rigid body

· Euler angles and equations of motion

· Hamilton mechanics

Recommended textbooks

· Landau, L. D., Lifshits, E. M., & Lifsic, E. M. (1960). Mechanics (Vol. 1). CUP Archive.

· Lanczos, C. (2020). The variational principles of mechanics. University of Toronto press.

Time 19:00 - 21:00, Wed

Location E11-1038

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