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### **Classical Mechanics with Calculus of Variations, and ...**

This traditional analogy is explained beautifully in Gelfand and Fomin's Calculus of Variations [8] (Appendix 1); see also Arnold's Mechanics [1]. Classical mechanics as a branch of mathematics. Classical mechanics deals with idealized objects, such as "point masses", "rigid bodies", "rods".

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calculus (including partial differentiation); and elementary vector analysis. Also, some ... The goal of classical mechanics is to provide a quantitative description of the motion of physical objects. Like any physical theory, mechanics is a blend of definitions and postulates. In describing this theory it is convenient to first introduce ...

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