

Classical Mechanics: From Particles to Continua and Regularity to Chaos

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List of clarifications, changes and corrections

1. p62: Sec 3.1, 4th para 4th line. Added ‘(at a common time)’. Second sentence should read: “... the results of mechanical experiments do not depend on where they are performed (at a common time).”
2. p72: Sec 3.4 **Phase portrait.** para 4th line. $x(t)$ should be $r(t)$.
3. p79, Sec 3.5, last sentence of Footnote 30: Add examples of systems with non-holonomic constraints. “e.g., a particle confined to a box, a particle that can fall off a spherical surface, a ball rolling without slipping on a plane, a tumbling cat, see also Sect. 3.17*.”
4. p387-388: Sec 11.6* **Kepler problem.** Revise para above (11.38) after 1st sentence to read: “However, the angular momentum $\mathbf{L} = l\hat{z}$ is conserved and the motion is on the x - y plane. In plane polar coordinates, $H = p_r^2/2m + V_{\text{eff}}$ where $V_{\text{eff}}(r) = l^2/2mr^2 - \alpha/r$ [see (2.20) and (2.21)]. The azimuthal angle ϕ and its conjugate momentum l form an angle-action pair. Although r is not an angle variable, the action variable (11.25) for the radial degree of freedom is:”