Errata for Revised Edition of “The Theoretical Minimum” as of April 2014

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Introduction

As the authors have both read the entire book at least four times we do not see the errors any longer. We rely on readers to tell us where we screwed up! So let us know.

Errata

Page 127: The Lagrangian near the top of the page is written,

$$L = m\left(\dot{x}_+{}^2 + \dot{x}_-{}^2\right) - V(x_-)$$

it should read

$$L = m\left(\dot{x}_+{}^2 + \dot{x}_-{}^2\right) - V(2\,x_-).$$

Page 193: The first set of three equations is written,

$$\left(\vec{V} \times \vec{A}\right)_x = V_y A_z - V_z A_y$$
$$\left(\vec{V} \times \vec{A}\right)_y = V_z A_x - V_x A_z$$
$$\left(\vec{V} \times \vec{A}\right)_z = V_x A_y - V_y A_z.$$

should be written,

$$\left(\vec{V} \times \vec{A}\right)_x = V_y A_z - V_z A_y$$
$$\left(\vec{V} \times \vec{A}\right)_y = V_z A_x - V_x A_z$$
$$\left(\vec{V} \times \vec{A}\right)_z = V_x A_y - V_y A_x.$$

Page 218: Equation (5) is written

$$\ddot{r} = r\,\dot{\theta}^2 - \frac{G\,M}{r}$$

should be

$$\ddot{r} = r\,\dot{\theta}^2 - \frac{G\,M}{r^2}$$