Atom Optics — Erratum

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The following misprints have been brought to my attention. I would very much appreciate your help in identifying further mistakes. Please communicate them to me at pierre.meystre@optics.arizona.edu

Chapter 1 — Light Forces on Atoms

In Eqs. (1.32)-(1.33), $\hbar \Omega(\mathbf{r})$ should read $\Omega(\mathbf{r})$.

(Found by Henning Christ)

Chapter 6 — Collisions

Equation (6.12) should read:

$$\mathcal{H}_f = \frac{\epsilon_0}{2} \int d^3r \left[ \frac{\hat{\mathcal{D}^2(r)}}{\epsilon_0^2} + c^2 \hat{\mathcal{B}^2(r)} \right].$$

(Found by Iwo Bialynicki-Birula)

In Eqs. (6.36) and (6.39), all $\delta$-functions should read $\delta(c|k| - \omega_a)$ and $\delta(c|k| - \omega_0)$, respectively. Also, Eq. (6.40) should read:

$$\Gamma_2(x) = \Gamma \int_0^\infty d\omega \frac{\omega}{\omega_0} \delta(\omega - \omega_0) \cos \left( \frac{\omega x}{c} \right) = \Gamma \cos(k_0 x).$$

(Found by Han Pu)

Chapter 10 — Bose-Einstein condensation

Page 178, last line of text, replace "equation (10.4)" by "equation (10.46)".

(Found by Kunal Das)

Chapter 12 — Nonlinear wave mixing

In equation (12.1), first line, the Kronecker $\delta$'s should read $\delta_{ja}$ and $\delta_{jb}$ instead of $\delta_{ia}$ and $\delta_{ib}$.

(Found by Kunal Das)
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