Erratum: 
*The Geometric Phase in Quantum Systems*
Updated February 2006

- **Page 46, Eq. (3.91):** $\omega$ must change to $\Omega$. The corrected Eq. (3.91) reads:

  $$\text{CALSS B: } \tau = \frac{2\pi}{\Omega}. $$

- **Page 47, Eq. (3.97):** $\frac{\omega}{\Omega}$ must change to $\frac{\Omega}{\omega}$. The corrected Eq. (3.97) reads:

  $$\psi(T) = U^\dagger(T)\psi(0) = e^{-i\alpha_k}\psi(0) = e^{-i2\pi k}\Omega\psi(0).$$

- **Page 49, Eq. (3.107):** $\frac{\omega}{\Omega}$ must change to $\frac{\Omega}{\omega}$. The corrected Eq. (3.107) reads:

  $$\alpha_k^{\text{dyn}} = k2\pi\left(\frac{\Omega}{\omega} + \cos \tilde{\theta}\right).$$

- **Page 49, first displayed equation below Eq. (3.108):** $\omega$ must change to $\Omega$. This equation should read:

  $$\frac{\Omega}{b} \approx 1 - \nu \cos \theta,$$

- **Page 50, first displayed equation below Eq. (3.112):** The $\omega$ in the denominator must change to $\Omega$. This equation should read:

  $$F_{\phi} = \frac{dA}{\Omega} = -k \frac{(1 - \frac{\omega}{b} \cos \theta)}{\left(\frac{\Omega}{b}\right)^3} \sin \theta \, d\theta \wedge d\varphi.$$}

- **Page 50, Eq. (3.113):** The $\omega$ in the denominator must change to $\Omega$. This equation should read:

  $$F_{\phi} = - \frac{k}{r^2} \frac{(1 - \frac{\omega}{b} \cos \theta)}{\left(\frac{\Omega}{b}\right)^3} \mathbf{R}(\theta, \varphi).$$

- **Page 51, first displayed equation below Eq. (3.116):** $\frac{\omega}{\Omega}$ must change to $\frac{\Omega}{\omega}$. This equation should read:

  $$\alpha_k^{\text{dyn}}(t) := \int_0^t \langle \psi(t')|h(t')|\psi(t') \rangle \, dt' = \omega tk \left(\frac{\Omega}{\omega} + \cos \tilde{\theta}\right)$$

- **Page 51, 4th Paragraph starting in this page, Line 4:** $\omega$ must change to $\Omega$. This line should read:

  “period $\tau = \frac{2\pi}{\Omega}$ with $\Omega$ given by (3.73). A Special case of Class B cyclic evo-”
The Geometric Phase in Quantum Systems
Foundations, Mathematical Concepts, and Applications
in Molecular and Condensed Matter Physics
Bohm, A.; Mostafazadeh, A.; Koizumi, H.; Niu, Q.;
Zwanziger, J.
2003, XXI, 427 p., Hardcover
ISBN: 978-3-540-00031-0