Erratum

H. Pelikan: Theory of Coupled Mode Oscillation in a Laser with Axial Magnetic Field

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The splitting of Eq. (2.8) into the equation for the frequency (3.4) contains a sign error. Eq. (3.4) should read

$$\Omega_{\pm} + \dot{\varphi}_{\pm} = \omega_{\pm} \pm \Delta \kappa \frac{B_{\mp}}{B_{\pm}} \sin \psi \delta_{\omega_{+}, \omega_{-}} + \sigma_{\pm} - \rho_{\pm} B_{\pm}^2 - \tau_{\pm} B_{\mp}^2. \quad (3.4)$$

This sign error also occurs in the Eqs. (4.2) and (5.1). They should read

$$\begin{aligned} \dot{\varphi}_{\pm} &= \pm \Delta \kappa \frac{B_{\mp}}{B_{\pm}} \sin \psi \delta_{\omega_{+}, \omega_{-}} \\ &= \pm \Delta \kappa \frac{B_{\mp}}{B_{\pm}} \sin [(\Omega_{-} - \Omega_{+}) t + \varphi_{-} - \varphi_{+}] \delta_{\omega_{+}, \omega_{-}}. \end{aligned} \quad (4.2)$$

$$\begin{aligned} \dot{\psi} &= \Omega_{-} - \Omega_{+} + \dot{\varphi}_{-} - \dot{\varphi}_{+} \\ &= \omega_{-} - \omega_{+} + \sigma_{-} - \sigma_{+} - (\rho_{-} B_{-}^2 - \rho_{+} B_{+}^2) - (\tau_{-} B_{+}^2 - \tau_{+} B_{-}^2) \\ &\quad - \Delta \kappa \left(\frac{B_{+}}{B_{-}} + \frac{B_{-}}{B_{+}} \right) \sin \psi \delta_{\omega_{+}, \omega_{-}} \\ &= \Omega_{-} - \Omega_{+} - a \sin \psi \delta_{\omega_{+}, \omega_{-}} \end{aligned} \quad (5.1)$$

where

$$a = + \Delta \kappa \left(\frac{B_{+}}{B_{-}} + \frac{B_{-}}{B_{+}} \right).$$

There is now frequency locking in the case $B_{+} = B_{-}$ too, in agreement with M. Sargent III, W. E. LAMB, R. L. FORK, Phys. Rev. **164**, 436, 450 (1967).

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