A model-based flexural rotor vibration control in cage induction electrical machines by a built-in force actuator

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The equation (15) is erroneous. The correct one is

$$\begin{aligned} \underline{f}_c = & \frac{\pi d_r l_r}{4\mu_0 \delta_0} \left(1 - \frac{1}{2} \delta_{p,1}\right) \hat{B}_p^2 z_r \\ & + \frac{\pi d_r l_r}{4\delta_0} [k_{c,p+1} \underline{B}_p^* | k_{r,p-1} \underline{B}_p | k_{r,p+1} \underline{B}_p^*] \\ & \times \begin{pmatrix} \hat{i}_{c,p+1,0} \\ \hat{i}_{r,p-1,0}^* \\ \hat{i}_{r,p+1,0} \end{pmatrix}. \end{aligned}$$

The numerical example presented in the paper was calculated for a two-pole ($p = 1$) machine for which the $p - 1$ -related terms were neglected. In this special case, the identification

results in Table 2 are consistent with the corrected model when the estimated $\underline{B}_p$ is multiplied with $\sqrt{2}$ and $k_{c,p+1}$ and $k_{r,p+1}$ are multiplied by $1/\sqrt{2}$. Under this scaling, the other equations in the paper remain unchanged.

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