Coulomb torque-a general theory for electrostatic forces in many-body systems

2003 J. Phys. A: Math. Gen. 36 8359

(http://iopscience.iop.org/0305-4470/36/30/000)

INSTITUTE OF PHYSICS PUBLISHING JOURNAL OF PHYSICS A: MATHEMATICAL AND GENERAL

J. Phys. A: Math. Gen. **36** (2003) 8359 www.iop.org/Journals/ja PII: S0305-4470(03)64134-X

Corrigendum

Coulomb torque—a general theory for electrostatic forces in many-body systems
Armik V M Khachatourian and Anders O Wistrom 2003 *J. Phys. A: Math. Gen.* **36** 6495–6508

On page 6502, line 13 should read: 'where the radius of sphere 1 is $\frac{\vec{a}_1}{a_1}=\hat{x}\sin\theta_1\cos\phi_1 + \hat{y}\sin\theta_1\sin\phi_1 + \hat{z}\cos\theta_1$.'

Equation (19) should read:

$$-\vec{F}_{12} = -\frac{K}{2}(\hat{x}-\mathrm{i}\hat{y})\int \mathrm{d}Q_1\mathrm{d}Q_2\left(p_+\frac{1}{R_{12}}\right) - \frac{K}{2}(\hat{x}+\mathrm{i}\hat{y})\int \mathrm{d}Q_1\mathrm{d}Q_2\left(p_-\frac{1}{R_{12}}\right) - K\hat{z}\int \mathrm{d}Q_1\mathrm{d}Q_2\left(p_z\frac{1}{R_{12}}\right) \tag{19}$$

Equation (32) should read:

$$-\vec{T}_{12} = -\frac{K}{2}(\hat{y}+\mathrm{i}\hat{x})\int \mathrm{d}Q_1\mathrm{d}Q_2 L_+\frac{1}{R_{12}} - \frac{K}{2}(\hat{y}-\mathrm{i}\hat{x})\int \mathrm{d}Q_1\mathrm{d}Q_2 L_-\frac{1}{R_{12}} - K\hat{z}\int \mathrm{d}Q_1\mathrm{d}Q_2 L_z\frac{1}{R_{12}} \tag{32}$$

Equation (39) should read:

$$\frac{\vec{T}_1}{a_1}+\frac{\vec{T}_2}{a_2}+\frac{\vec{T}_3}{a_3}+\cdots+\frac{\vec{T}_i}{a_i}=0 \tag{39}$$

0305-4470/03/278359+01$30.00