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Exact solutions of Schrödinger's equation for translation-invariant harmonic matter

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Corrigenda

On the most probable path for diffusive processes

Langouche F, Roekaerts D and Tirapegui E 1978 J. Phys. A: Math. Gen. 11 L 263-8

On p L264 the first line after equation (3) should read: 'The technique of Langouche et al (1978c)...'

The potential given after equation (6) should read

$$V(\boldsymbol{q}) = \frac{1}{2} \sum_{\mu=1}^{N} \left[\boldsymbol{A}^{\mu}(\boldsymbol{q})^{2} - \partial_{\mu} \boldsymbol{A}^{\mu}(\boldsymbol{q}) \right].$$

In the fourth line of p L267, the reference after equation (16) should be Langouche *et al* (1978b).

Equation (20) should end as:

$$\dots V(\mathbf{y}_{l-1})]. \tag{20}$$

The third line after equation (20) should read:

$$\mathbf{x}_{j-1}^{(1/2)}) + \mathbf{O}(\boldsymbol{\epsilon}^{3/2}) = \Delta_j^{\mu} f^{\mu}(t_{j-1}, \mathbf{x}_{j-1}^{(1/2)}).$$

In the second line of p L 268 the reference should be to equation (7) rather than (11).

In the references Leiden should be replaced by Leuven.

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In equations (3) and (7) the inter-centre-of-Mass kinetic energy term is too large by a factor of 2 and should read

$$\frac{1}{2N}\left(\frac{N_2}{m_1}+\frac{N_1}{m_2}\right)\boldsymbol{\pi}^2.$$

Consequently in the formula for the ground-state energy E_0 (i.e. equation (8)) the third term should be divided by $\sqrt{2}$ giving

$$a\hbar k_3 2^{-1/2} \left(\frac{N_2}{m_1} + \frac{N_1}{m_2}\right)^{1/2}$$