

Harmonic potential as an effective limit of a discrete classical interaction

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Corrigendum

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Breno R Segatto, Julio C S Azevedo, Manoelito M de Souza 2003 *J. Phys. A: Math. Gen.* **36** 5115–5120

Equations (15) and (16) of this paper must be replaced by

$$\begin{aligned}\vec{r}_n^{(s)} &= (-1)^s \sum_{j_1=0}^{n-1} \sum_{j_2=0}^{j_1-1} \cdots \sum_{j_{2s}=0}^{j_{2s-1}-1} \vec{r}_{j_{2s-1}}^{(0)} \\ &= (-1)^s \sum_{j_1=0}^{n-1} \sum_{j_2=0}^{j_1-1} \cdots \sum_{j_{2s}=0}^{j_{2s-1}-1} \left(\vec{r}_0 + \frac{\alpha \vec{p}_0}{m} j_{2s} \right).\end{aligned}\quad (15)$$

$$\begin{aligned}\vec{p}_n^{(s)} &= (-1)^s \sum_{j_1=0}^{n-1} \sum_{j_2=0}^{j_1-1} \cdots \sum_{j_{2s}=0}^{j_{2s-1}-1} \vec{p}_{j_{2s-1}}^{(0)} \\ &= (-1)^s \sum_{j_1=0}^{n-1} \sum_{j_2=0}^{j_1-1} \cdots \sum_{j_{2s}=0}^{j_{2s-1}-1} (\vec{p}_0 - m \alpha \omega^2 \vec{r}_0 j_{2s}).\end{aligned}\quad (16)$$

and we use $j_{2s} = \binom{j_{2s}}{1}$.