**Corrigendum to “Ensemble transformations in the fluctuation theory” [Physica A 585 (2022) 126430]**

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We would like to correct the following equations.

$δa=μ\_{1}δn\_{1}+μ\_{2}δn\_{2}+\frac{1}{2}\left(\frac{∂^{2}a}{∂n\_{1}^{2}}\right)δn\_{1}δn\_{1}+\left(\frac{∂^{2}a}{∂n\_{1}δn\_{2}}\right)δn\_{1}δn\_{2}+\frac{1}{2}\left(\frac{∂^{2}a}{∂n\_{2}^{2}}\right)δn\_{2}δn\_{2}$ (2.4)

$δE^{\left(r\right)}=T^{\left(r\right)}δS^{\left(r\right)}+μ\_{1}^{\left(r\right)}δN\_{1}^{\left(r\right)}+μ\_{2}^{\left(r\right)}δN\_{2}^{\left(r\right)}$

$+\frac{1}{2}\sum\_{i,j}^{}\frac{∂^{2}E^{\left(r\right)}}{∂N\_{i}∂N\_{j}}δN\_{i}^{(r)}δN\_{j}^{(r)}+\sum\_{i}^{}\frac{∂^{2}E^{\left(r\right)}}{∂N\_{i}∂S^{(r)}}δN\_{i}^{(r)}δS^{\left(r\right)}+\frac{1}{2}\frac{∂^{2}E^{\left(r\right)}}{∂S^{(r)}∂S^{(r)}}δS^{(r)}δS^{\left(r\right)}$ (A.1)

$-P^{\left(r\right)}δV^{\left(r\right)}+\sum\_{i}^{}\frac{∂^{2}E^{\left(r\right)}}{∂N\_{i}∂V^{\left(r\right)}}δN\_{i}^{\left(r\right)}δV^{\left(r\right)}+\frac{∂^{2}E^{\left(r\right)}}{∂S^{\left(r\right)}∂V^{\left(r\right)}}δS^{\left(r\right)}δV^{\left(r\right)}+\frac{1}{2}\frac{∂^{2}E^{\left(r\right)}}{∂V^{(r)}∂V^{(r)}}δV^{(r)}δV^{\left(r\right)}$ (A.2)

$δe=Tδs-Pδv+\frac{1}{2}\left(\frac{∂^{2}e}{∂s^{2}}\right)δsδs+\left(\frac{∂^{2}e}{∂sδv}\right)δsδv+\frac{1}{2}\left(\frac{∂^{2}e}{∂v^{2}}\right)δvδv$ (B.1)

Consequently, $δR\_{v}$ $δR\_{P}$, $δR\_{k}$, and $δR$ should be corrected as $2δR\_{v}$ (from Eq. (2.5)), $2δR\_{P}$ (from Eq. (3.2)), $2δR\_{k}$ (Eq. (5.2)) and $2δR$ (Eq. (B.2)), respectively, yet there is no need to correct Eqs. (2.11) and (3.7). Hence, correcting $δR$ as $2δR$ does not affect our main results and conclusions.