

Correction to: Variations of characteristic time scales in rotating stratified turbulence using a large parametric numerical study^{*}

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Original article: Eur. Phys. J. E (2016) 39: 8, <https://doi.org/10.1140/epje/i2016-16008-7>

Received 1 September 2017 and Received in final form 20 September 2017

Published online: 11 October 2017 – © EDP Sciences / Società Italiana di Fisica / Springer-Verlag 2017

After publication of the paper, an error in computing the ratio γ of kinetic to potential energy transfer times has been detected, which has led the authors to amend two figures, as explained below.

Energy dissipation rates, $\epsilon_{v,p} = |D_t E_{v,p}|$, were computed with isotropic one-dimensional Fourier data, when 2D spectra should have been used [1]. The difference is particularly stark for the strongly anisotropic density dissipation ϵ_p , with sharp fronts. Figure 1 replaces fig. 4 (middle panel) and gives the correct ϵ_p as a function of the Rossby number Ro ; ϵ_v differs little from the original and is not shown.

Figure 2 replaces fig. 7 and gives the correct ratio of the kinetic to potential transfer times, $\gamma = T_v/T_p$ (with $T_v = E_v/\epsilon_v$, $T_p = E_p/\epsilon_p$), as a function of the Richardson number (top) and N/f (bottom), with binning in Ro , with 56 runs being examined [2]. The range of variation of γ is now smaller, and the peak for $Ri \approx 1$ is less noticeable. All other conclusions of the paper remain unchanged.

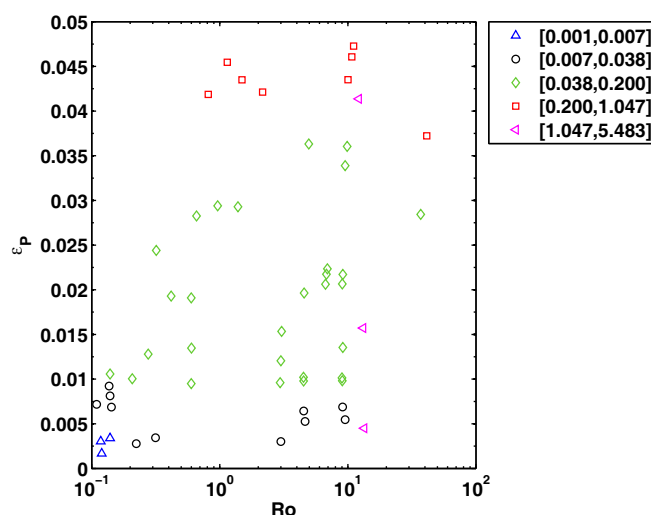


Fig. 1. $\epsilon_p = F(Ro)$ with binning in the Froude number.

^{*} Contribution to the Topical Issue “Multi-scale phenomena in complex flows and flowing matter” edited by Luca Biferale, Massimo Cencini, Alessandra Lanotte and Mauro Sbragaglia.

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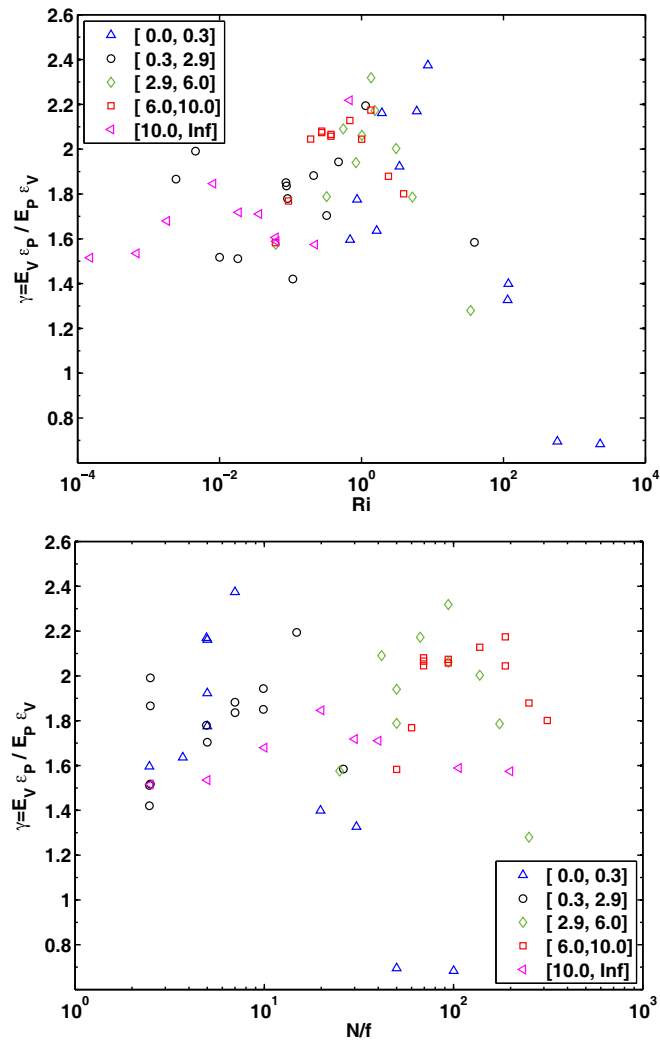


Fig. 2. $\gamma = E_v \epsilon_p / [E_p \epsilon_v] = F(Ri)$ (top) and $F(N/f)$ (bottom).

Finally, a misprint in the captions for the kinetic and potential energies and dissipations is that in the original paper the authors plot twice these energies and half these dissipations. The overall variations with dimensionless parameters as displayed in the figures remain, of course, identical.

References

1. D. Rosenberg, A. Pouquet, R. Marino, P.D. Mininni, Phys. Fluids **27**, 055105 (2015).
2. A. Pouquet, D. Rosenberg, R. Marino, C. Herbert, *Scaling laws for mixing and dissipation in unforced rotating stratified turbulence*, submitted to J. Fluid Mech., arXiv:1708.07146.