

Dear Editor,

While proofreading the approved manuscript, we realized that there were three small changes in the manuscript that were required. The first one relates to a change in the abstract that make it more concrete. The second one relates to figure 5, which we re-did to improve the scaling results using a more efficient super computer. The last one relates to a mistake we had made reporting one of the results. This has been now fixed in the conclusion section of the paper.

Please note that all these are minor changes in the manuscript have only improved the quality of the results presented as well as the related text. The corresponding changes are explained in details below.

Best Regards,
Fabien Margairaz

Changes to the abstract of GMD-2017-272

New proposed text: *The three dealiasing methods compare well in terms of first and second order statistics for the considered cases, with modest local departures that decrease as the grid stencil is reduced. Computed velocity spectra using the 3/2 rule and the FS method are in good agreement, whereas the FT method yields a spurious energy redistribution across wavenumbers that compromises both the energy-containing and inertial sublayer trends.*

The main advantage of the FS and FT methods when compared to the 3/2 rule is a notable reduction in computational cost, with larger savings as the resolution is increased (15% for a resolution of 128^3 , up to a theoretical 30% for a resolution of 2048^3)

Old text: *Both the Fourier truncation and the Fourier smoothing method correctly predict basic statistics. However, they both prove to provide less accurate flow statistics when compared to the traditional 3/2 rule. The accuracy of the methods is dependent of the resolution.*

Justification: We found the first sentence too inaccurate. We wanted to be precise on what we meant by “basic statistics”.

Old text: *The accuracy of the methods is dependent of the resolution.*

Justification: This sentence provides little information and might even be confusing. Therefore, we decided to mention that local departures between profile decrease or increase with the resolution. In addition, talking about accuracy is misleading as one might understand that we’re considering the “order of accuracy” of the method.

Old text: *The biggest advantage of both of these methods against the exact 3/2 rule is a notable reduction in computational cost with an overall reduction of 15% for a resolution of 128^3 , 17% for 192^3 , and 21% for 256^3*

Justification: The main message we should deliver is not that you go from 15% saving to 21% saving for selected resolutions, but rather that savings increase with increasing resolution.