

₁ The “scatter” of the stratification: a simple
₂ metric to study the finescale structure of the
₃ oceanic density field

₄ Arnaud Czaja, Pascale Lherminier & Herlé Mercier
Supplementary Material.

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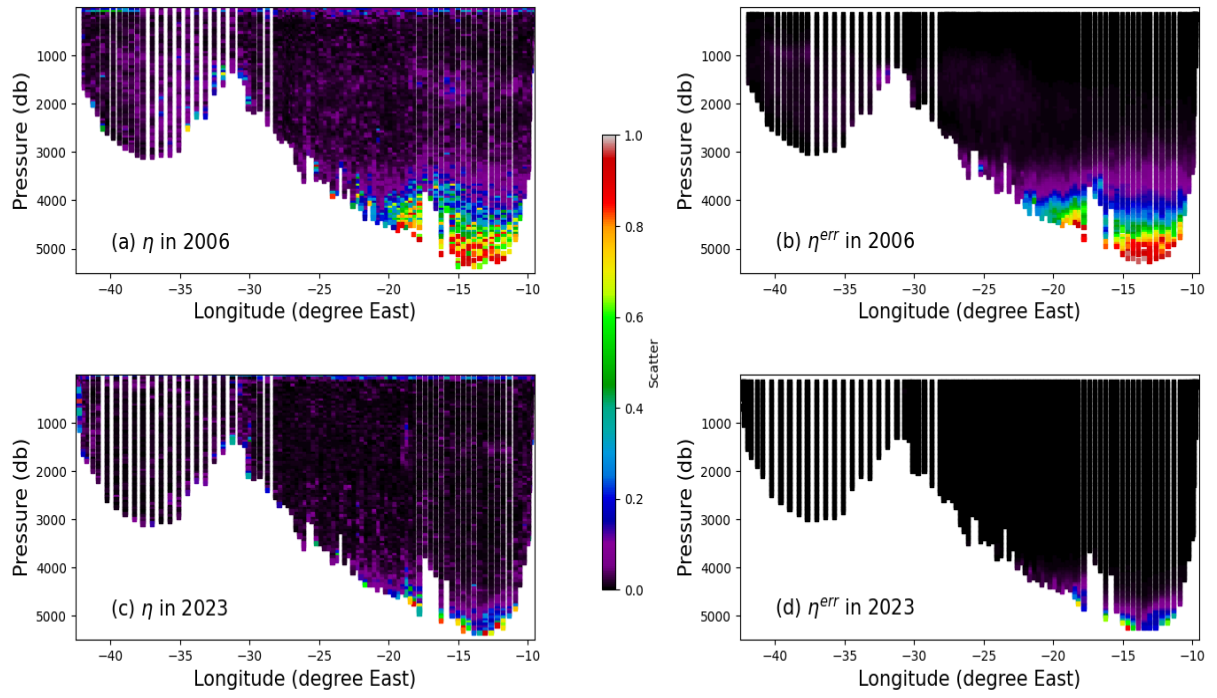


Figure S1: Supplementary figure. Same as Fig. 7 but for the $h = 100m$ case.

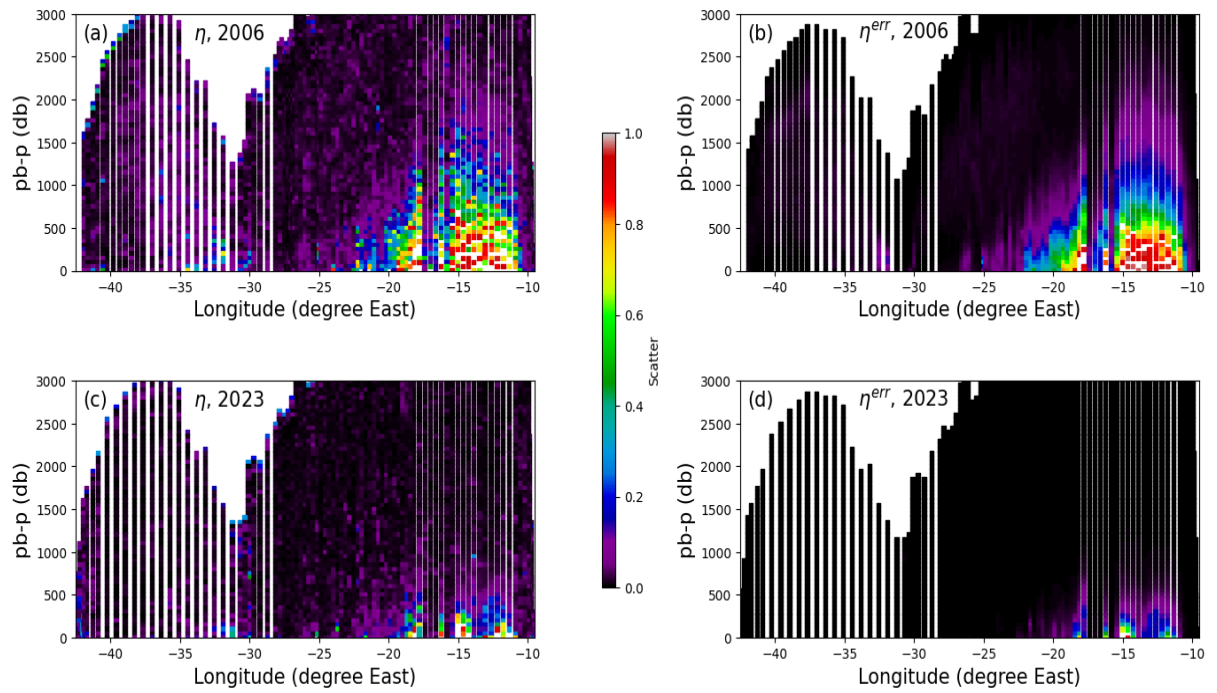


Figure S2: Supplementary figure. Same as Fig. 8 but for the $h = 100m$ case.

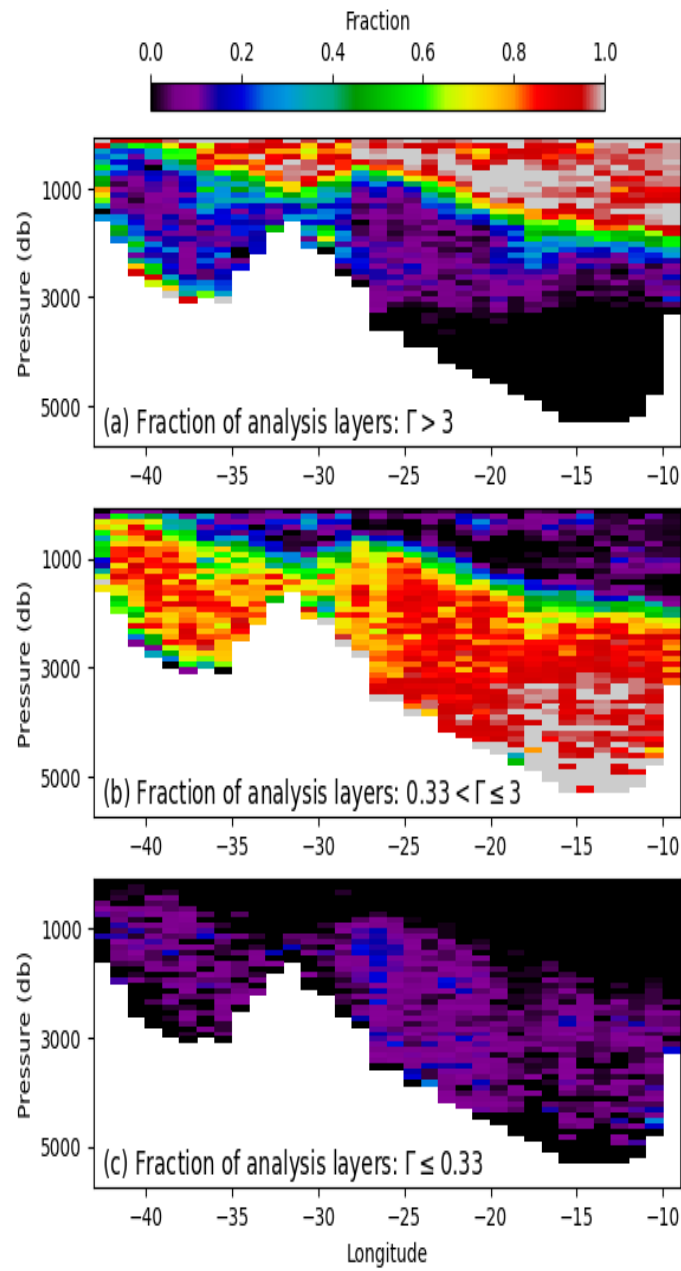


Figure S3: Supplementary figure. Same as Fig. 9 but for the earlier OVIDE sections (2002-2006).

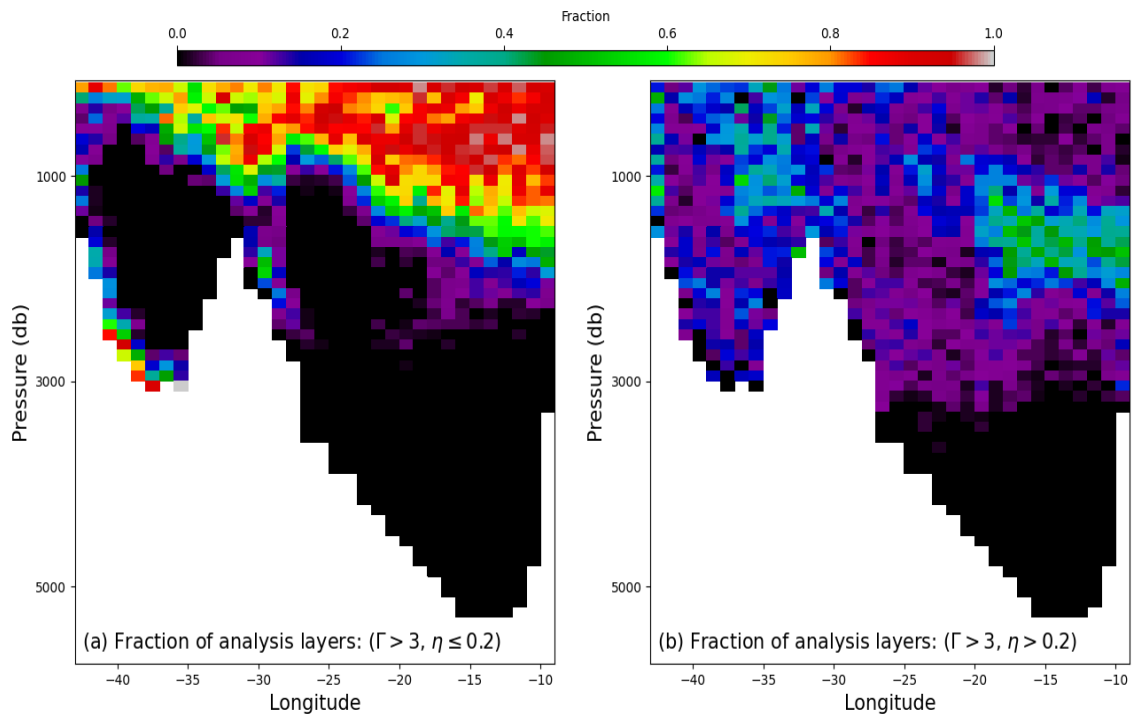


Figure S4: Supplementary figure. Same as Fig. 10 but for the earlier OVIDE sections (2002-2006).

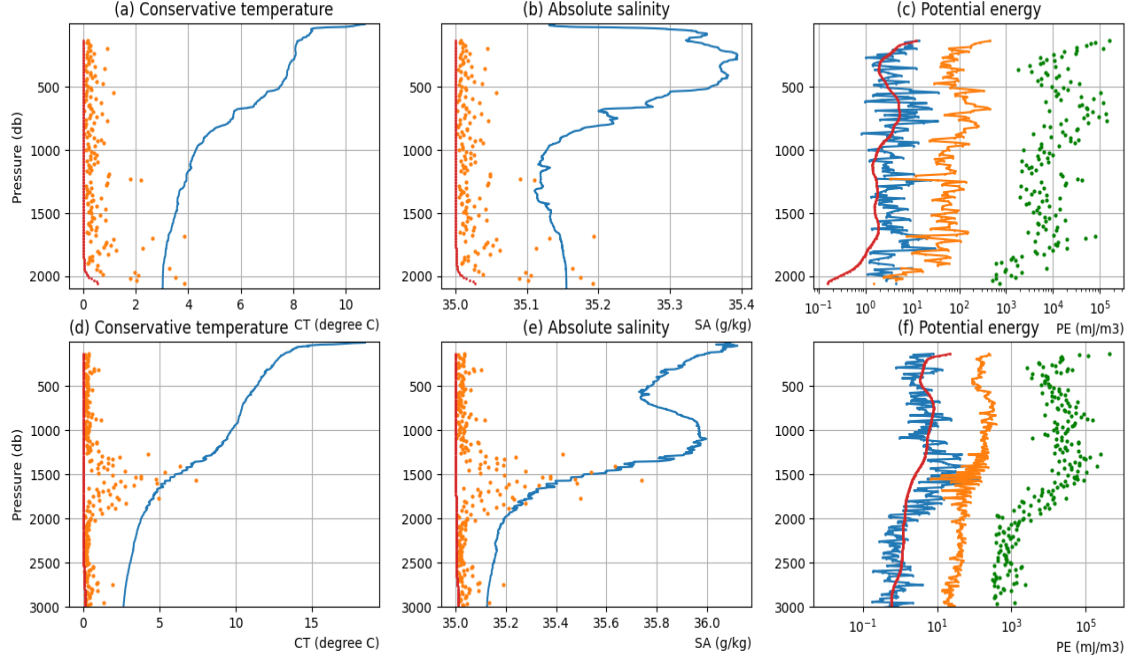


Figure S5: As Fig. 12 but in Panels (a)-(b)-(c): at $30.1^{\circ}W - 58.41^{\circ}N$ in 2010 (cast 65). The scatter (η, η^{err}) have been plotted as $5(\eta, \eta^{err})$ in (a) and $35 + (\eta, \eta^{err})/4$ in (b). Panels (d)-(e)-(f): at $14.7^{\circ}W - 42^{\circ}N$ in 2012 (cast 18). The scatter (η, η^{err}) have been plotted as $10(\eta, \eta^{err})$ in (a) and $35 + (\eta, \eta^{err})$ in (b). The profiles are only plotted above 3000db to highlight the Mediterranean Water.



Figure S6: Supplementary figure. Average stratification ($\langle \tilde{N}^2 \rangle$, in s^{-2} –see Section 4.2) computed over each OVIDE section (year indicated on the x-axis) over the Iberian Abyssal Plain ($16^\circ W - 10^\circ W$, below $4500db$) in a calculation using ($h = 25m, n_l = 5$) but not restricting the averaging to specific values of Γ or η . The vertical errorbars indicate the standard error of the mean for each section while the red dashed lines give the standard error of the mean based on all sections, above and below the long term mean shown in continuous red. The result of a linear regression calculation to this timeseries is plotted in black (the slope is not significant at the 95% confidence level in a two-sided t-test).

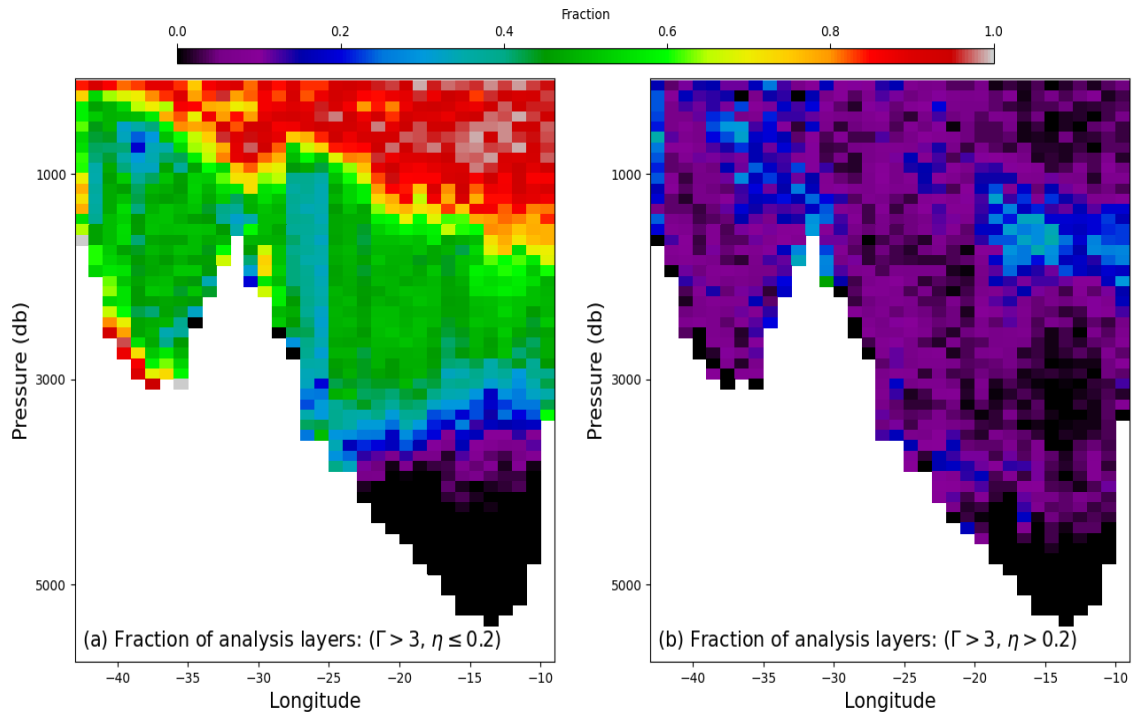


Figure S7: Supplementary figure. Same as Fig. 10 but for the period used by Ferron et al. (2016), i.e. OVIDE sections from 2002 to 2012.