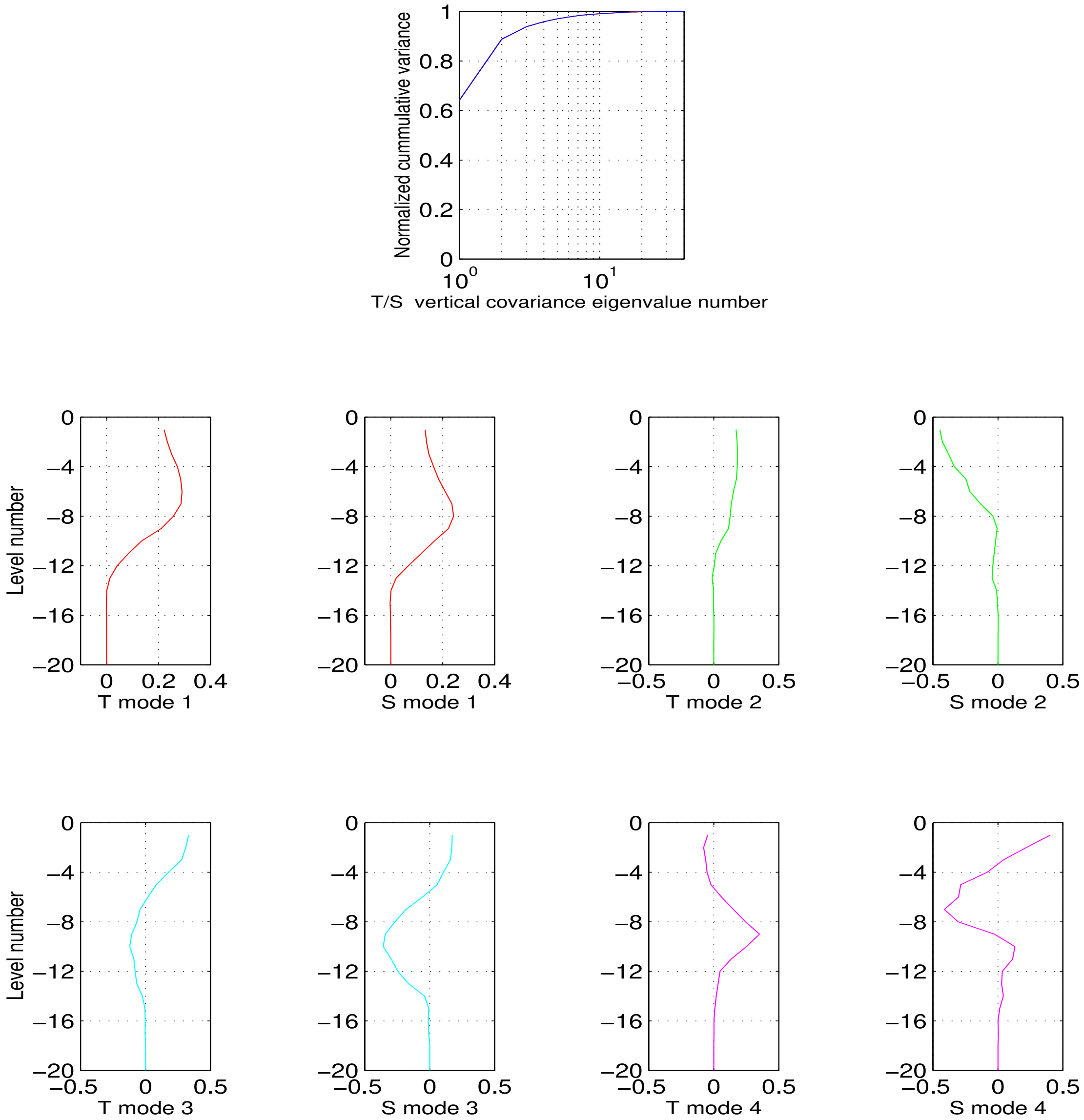

Fig. 6. Eigendecomposition of the non-dimensional covariance of the subbasin-scale residuals of tracer profiles.

Top panel: normalized cumulative variance as a function of the eigenvalue number. The covariance $\mathbf{C}^z_{\mathrm{trc}}$ is $[40 \times 40]$. The first T, S vertical EOF explains 64% of the subbasin-scale variance, the second 25%, the third 5% and the fourth 2%. Together they account for 96% of the variance; the dominant 8 for 99%.

Bottom panels: four dominant EOFs as a function of depth. The shallowest 12 levels are flat, of depths equal to $[5, 20, 45, 75, 105, 135, 175, 225, 275, 335, 410, 500]$ m; the bottom eight are sigma levels.