ERRATUM

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FRACTAL TRACER PATTERNS IN OPEN HYDRODYNAMICAL FLOWS: THE CASE OF LEAPFROGGING VORTEX PAIRS

[Fractals Vol. 3, No. 1, p. 38, Fig. 4]

he corrected version of Fig. 4, with the color coding inserted at the bottom right-hand corner, is shown in the next page.

Fig. 4 Motion in a fluid whose color is changing. Dye particles are injected along the vertical line $x = 4$. The color is changed after each full time period T . The index used in the legend of color coding indicates the color of tracers injected in the period $(n - 1)T \leq t \leq nT$. Light red marks tracers injected more than 12 periods before. The red regions corresponds to the vortex cores not reachable by tracers coming from outside, and can formally be considered as regions of infinite lifetimes. Part (a) displays the distribution of differently colored tracers at $t_0 = 99 T$. (Numerically it has been convenient to obtain it by starting trajectories on a grid of 800×400 points in the range shown, iterating the tracer dynamics backward, and coloring the initial points according to the time the tracers needed to cross the $x = 4$ line.) Figs. b–e show how these material regions evolve in time by taking snapshots at $t - t_0 = 0.356 T, 0.5 T, 0.644 T, T$. Note that Fig. 4(e) is the same as Fig. 4(a) but the color code has been shifted by 1.