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On DiPerna-Majda concentration sets for two-dimensional incompressible flow.

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R. J. DiPerna and A. Majda [J. Amer. Math. Soc. **1** (1988), no. 1, 59–95] studied the nature of the limiting behavior of sequences of solutions of Euler's equations, or appropriate sequences of approximate solutions; in that paper they defined the notion of concentration set. The authors prove that there are no concentration sets of space-time dimension strictly less than one. Therefore approximate solution sequences of the Euler equations either converge strongly or have a concentration set of space-time dimension exactly equal to one, with the set of time coordinates being of positive Lebesgue measure. Finally, an example is given of a bounded sequence of steady solutions of Euler's equations whose weak limit is zero and whose concentration set is uncountable, everywhere dense on the unit square, and of Hausdorff dimension zero.

Reviewed by *Jean Leray*