interfacial regions between vortices and eventually collecting around stagnation points. This is especially true in a two-dimensional flow field where vortices play a predominant role: centrifugal forces are responsible for the migration of particles from the core of the vortices to the interfacial regions between vortices.

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數值模擬計算顆粒在擾流中擴散

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摘　要

利用數值模擬計算，研究顆粒在二次擾流中（例如砂粒於水中）運動情形。

擾流場數值是由直接積分 Navier-Stokes 公式所得，顆粒在擾流場中活動情形，可依 Basset-Boussinesq-Oseen 公式經由數值模擬計算解得。

計算結果顯示顆粒在渦流中心漸漸減少而向渦流外圍聚集，此種現象和吾人所熟知的二次元流體特性相吻合，蓋粒子因受渦流旋轉離心力影響而由內（漩渦中心）向外擴散。