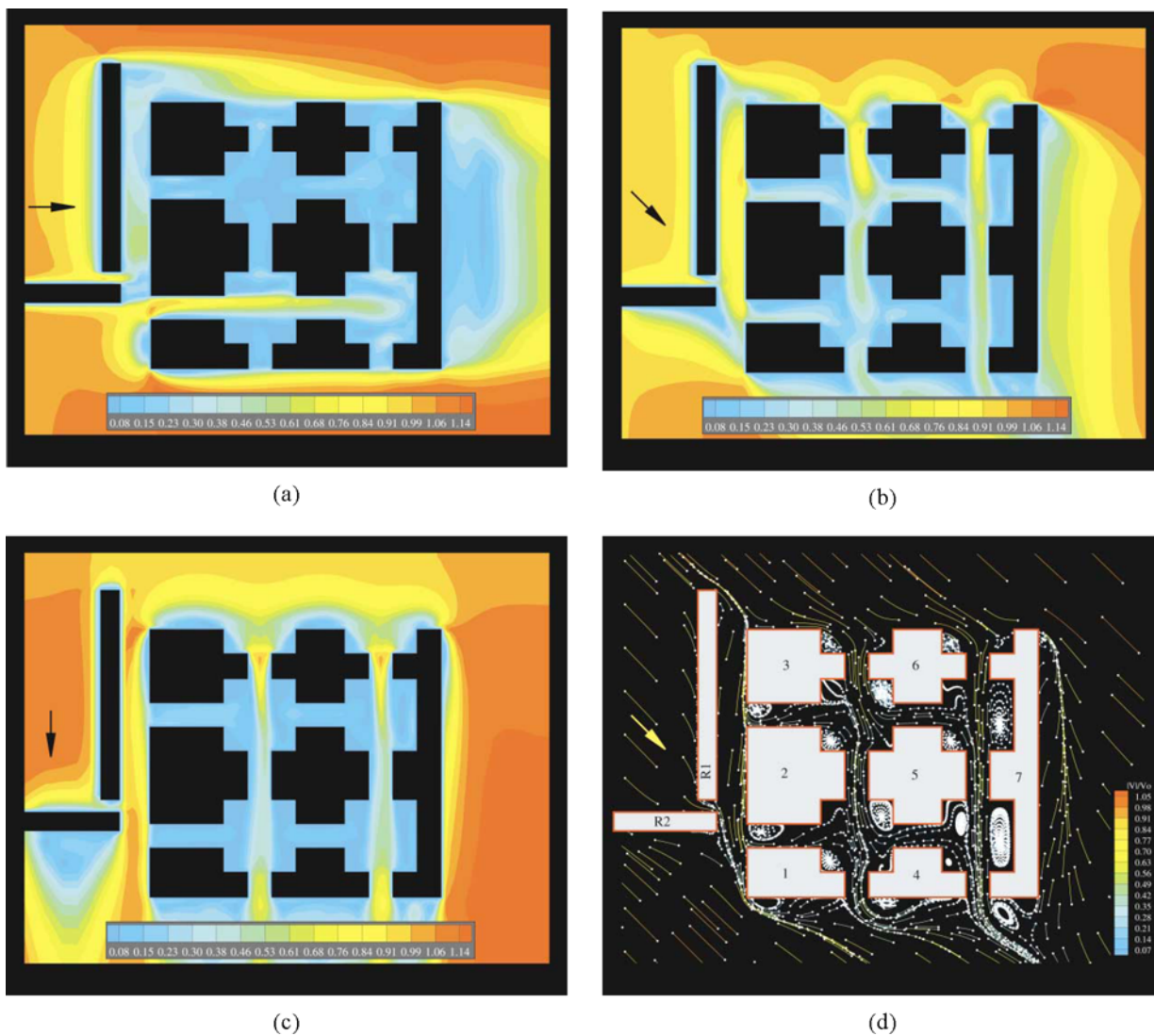


4. Simulation of three-dimensional, turbulent flow around several pavilions separated by passageways

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Velocity isolines for the wind flow around a group of low-rise pavilions, separated by passageways. The configuration considered represents the southern end of the EXPO '98 World Exposition area. Figures (a), (b) and (c) depict iso-contours of wind velocity for N-, NE- and E-incidence angles, respectively, at the horizontal plane $z = 3\text{m}$. Figure (d) exemplifies the pathlines for the wind flow around the same group of pavilions, for NE-incidence angle and for the horizontal plane $z = 3\text{m}$ at the site. Each pathline segment represents the distance between two non-interfering particles, for a specified time interval, moving in the flow field.

The velocity field was obtained by solving numerically the 3-D equations governing mass and momentum conservation and using for the turbulence closure the RNG model. The colour map depends on the non-dimensional parameter representing the relation between local and inlet velocity magnitude, measured at the height $z = 3\text{m}$.