Lagrangian Panel Method for Vortex Sheet Motion in 3D Flow\textsuperscript{1}
ROBERT KRASNY, University of Michigan, HUALONG FENG, Nanjing University of Science and Technology, LEON KAGANOFSKIY, New College of Florida — A Lagrangian panel method is presented for computing vortex sheet motion in 3D flow. The sheet is represented by a set of quadrilateral panels with a quadtree structure. The panels have active particles that carry circulation and passive particles used for adaptive panel refinement. The Biot-Savart kernel is regularized and the particle velocity is computed using a treecode. Results are presented for the azimuthal instability of a vortex ring and the oblique collision of two vortex rings.

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