

**Meeting:** 998, Houston, Texas, SS 14A, Special Session on Space and Time Decomposition Methods in Computational and Applied Mathematics

998-65-322      **T.-W. Pan\*** ([pan@math.uh.edu](mailto:pan@math.uh.edu)), Department of Mathematics, University of Houston, Houston, TX 77204, and **R. Glowinski** ([roland@math.uh.edu](mailto:roland@math.uh.edu)), Department of Mathematics, University of Houston, Houston, TX 77204. *The direct numerical simulation of non-smooth shape particles settling in incompressible viscous fluid.* Preliminary report.

In this talk we will investigate the numerical treatment for the direct numerical simulation of particles of non-smooth shape, such as rectangle in 2D and truncated cylinder in 3D, settling in incompressible viscous fluid. The methodology is based on the combination of distributed Lagrange multiplier/fictitious domain method, finite element method and operator splitting. Preliminary results will be presented. (Received March 01, 2004)