

Slamming - Sinking Sphere

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LSDYNA ICFD solver

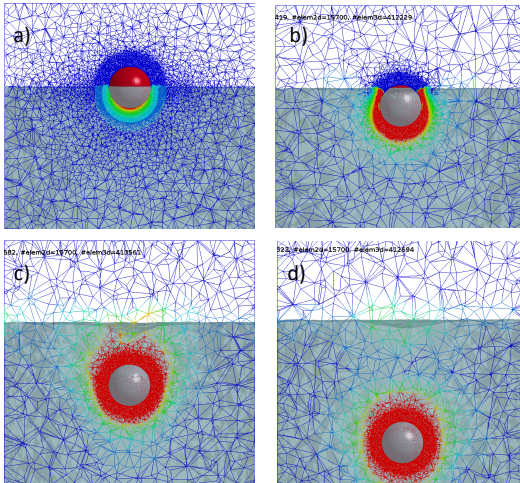
Dev version SVN 121000



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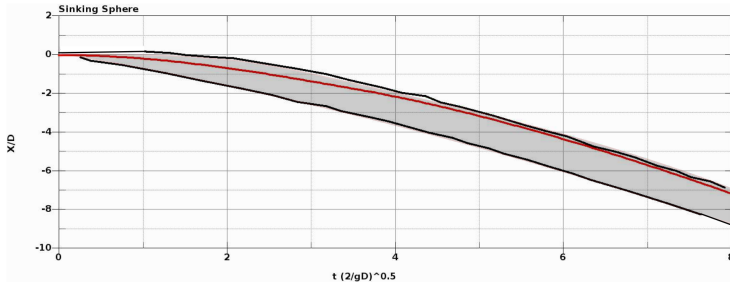
- ▶ Water, $\rho = 1000$ and $\mu = 0.001$
- ▶ Solid, $\rho = 2540$
- ▶ Sphere Diameter, 0.012
- ▶ Gravity, 9.81
- ▶ Surface mesh size 0.0005

Fluid Velocity Fringes



a) $t=0.008s$ b) $t=0.038s$ c) $t=0.078s$ d) $t=0.118s$

Comparison between numerical results (in red) and Experimental error region (shaded grey)



- [1] R. B. Canelas, J. M. Domínguez, A. J. Crespo, M. Gómez-Gesteira, and R. M. Ferreira, “A smooth particle hydrodynamics discretization for the modelling of free surface flows and rigid body dynamics,” *International Journal for Numerical Methods in Fluids*, vol. 78, no. 9, pp. 581–593, 2015.

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