

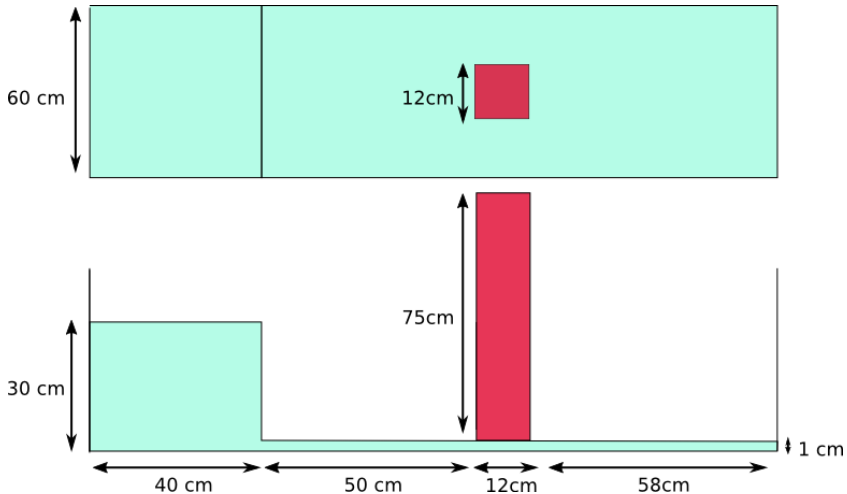
Dam break and impact on a rigid column

Iñaki Çaldichoury Facundo Del Pin Rodrigo Paz

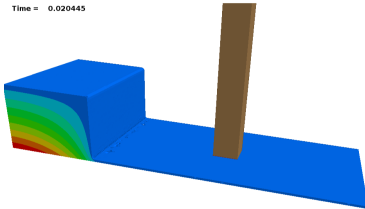
LSDYNA ICFD solver
Dev version SVN 107279



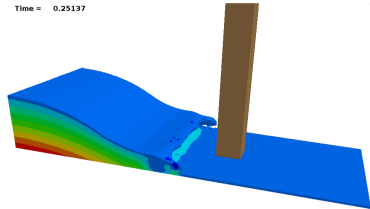
- ▶ Water, $\rho = 1000$ and $\mu = 0.001$
- ▶ Shallow wet bed of 1 cm
- ▶ approx 1.4M elements



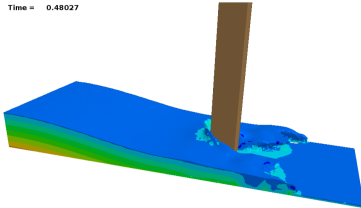
Time = 0.020445



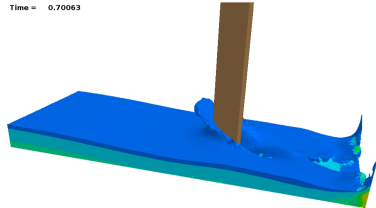
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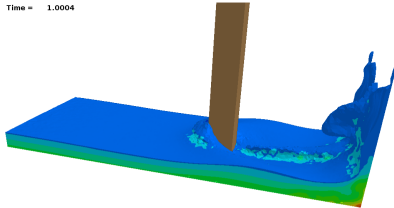
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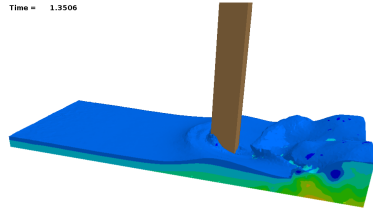
Time = 0.70063



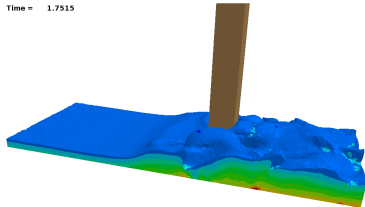
Time = 1.0004



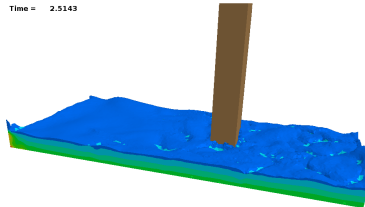
Time = 1.3506

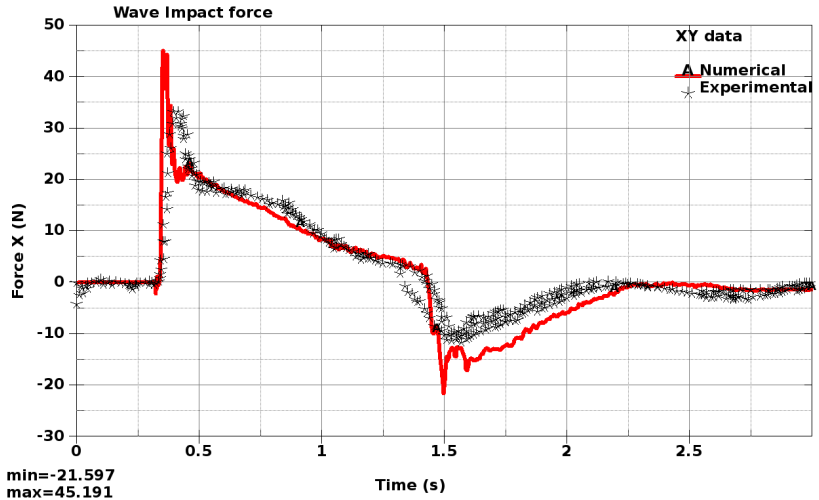


Time = 1.7515



Time = 2.5143





- [1] T. Wu, *A Numerical Study of three dimensional Breaking Waves and Turbulence effects*.
PhD thesis, Cornell University, 2004.
- [2] M. Gomez-Gesteira, A. J. C. Crespo, B. D. Rogers, R. A. Dalrymple, J. M. Dominguez, and A. Barreiro, "Sphysics - development of a free-surface fluid solver - part 2: Efficiency and test cases," *Comput. Geosci.*, vol. 48, pp. 300–307, Nov. 2012.
- [3] T. B. Silvester and P. W. Cleary, "Wave-structure interaction using smoothed particle hydrodynamics," (CSIRO, Melbourne, Australia), Fith International Conference on CFD in the Process Industries, December 2006.

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