Testcases (main/examples) included in the full DualSPHysics package v4.2 in http://dual.sphysics.org/index.php/downloads/)
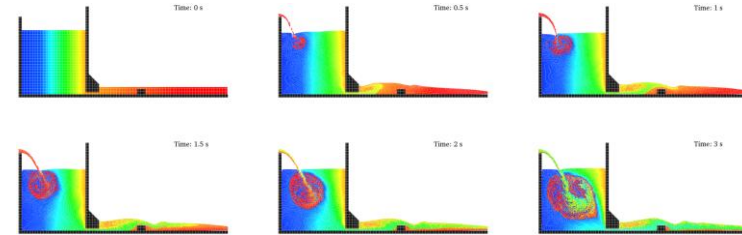
| 01_DAMBREAK		
• 3-D dam break flow impacting on a structure: numerical velocity, pressure and force are computed. Video • 2-D dam break and validation data from [Koshizula and Oka, 1996] experiment. Video		
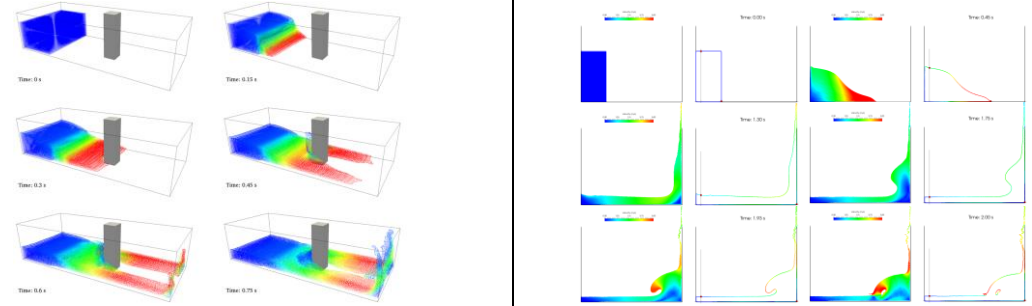
02_PERIODICITY	
• 2-D case with Periodicity in X direction. Video Delta-SPH is also use.	

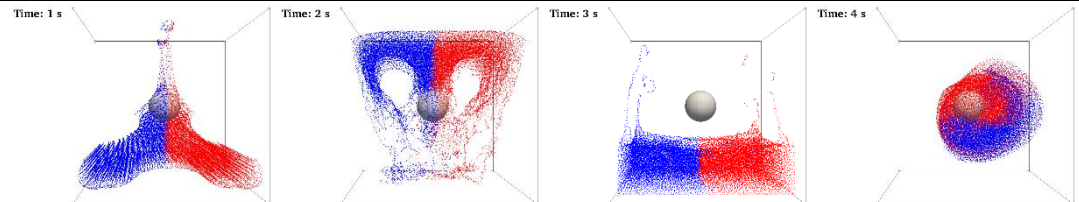| 03_MOVINGSQUARE	
• 2-D case with square that moves with rectilinear movement. Video Example of no gravity so parameter "b" needs to be specified by the user. Shifting is used for this internal flow (no need to detect free surface).	
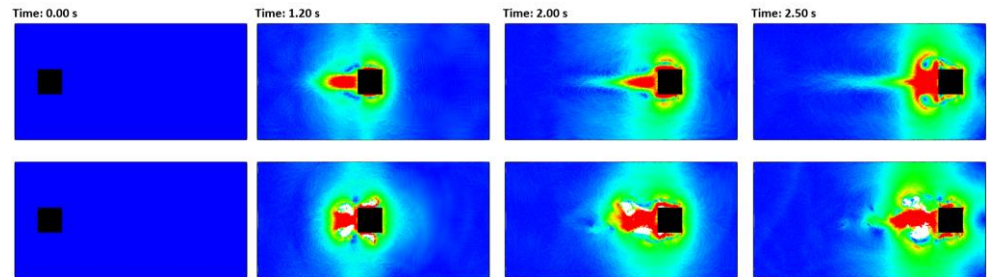
04_EXTERNALFORCES	
• External acceleration is loaded from a file and applied to two different volumes of fluid. Video Delta-SPH is also used.	

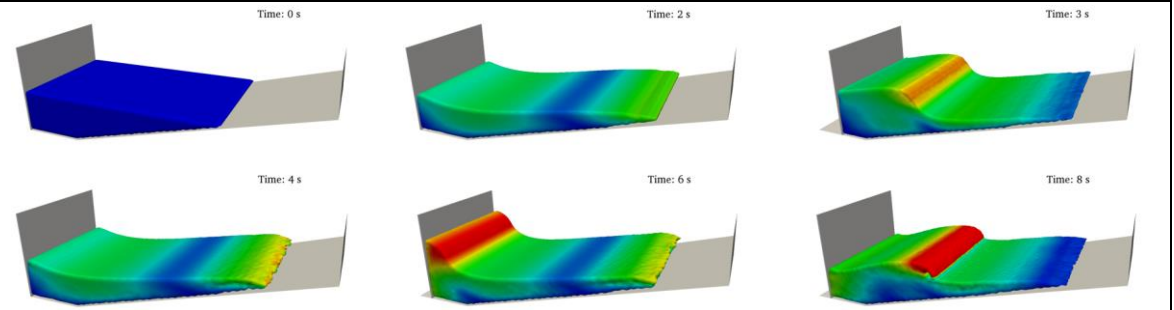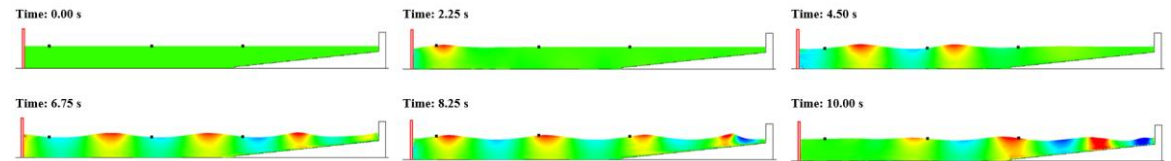| 05_SLOSHINGTANK	
• 2-D sloshing tank that reads the rotational movement of the tank itself from a file. Video • 2-D sloshing tank that reads external acceleration from a file. Validation with SPHERIC Benchmark #10 where pressure is computed.	
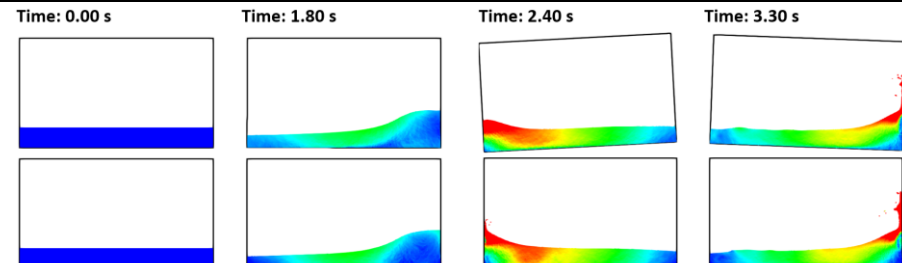
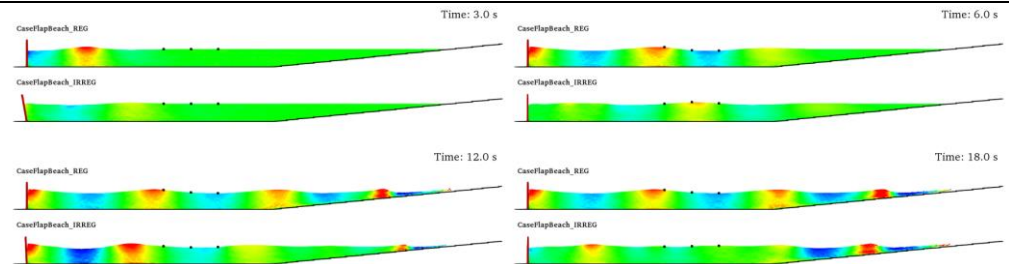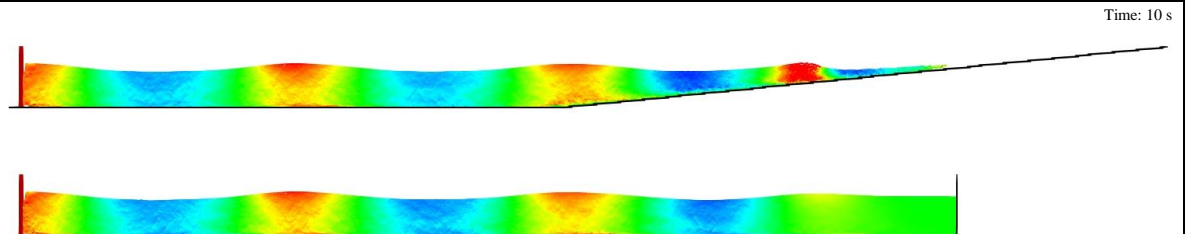|	
06_WAVEMAKER • 3-D tank with Periodicity in Y direction and piston with sinusoidal movement. Video Delta-SPH and Shifting are used.	
07_WAVEMAKERFILE • 2-D tank with piston motion loaded from external file and external structure (STL). Video Validation data from CIEMito experiment: numerical computation of wave surface elevation and force exerted onto the wall.	
08_WAVESFLAP • 2-D regular waves generated with flap and comparison with 2nd order wave theory (beach). Video • 2-D irregular waves generated with flap and comparison with 2nd order wave theory (beach).	
09_WAVESPISTON • 2-D regular waves with piston and comparison with 2nd order wave theory (beach & damping). Video • 2-D irregular waves with piston and comparison with 2nd order wave theory (beach & damping). Video	
10_WAVESPISTONAWAS • 2-D regular waves generated with piston interacting with a vertical wall with and without AWAS. Forces against the wall and dike with and without AWAS are compared. Video • 2-D regular waves generated with piston interacting with a trapezoidal dike with and without AWAS. Forces against the wall and dike with and without AWAS are compared. Video	
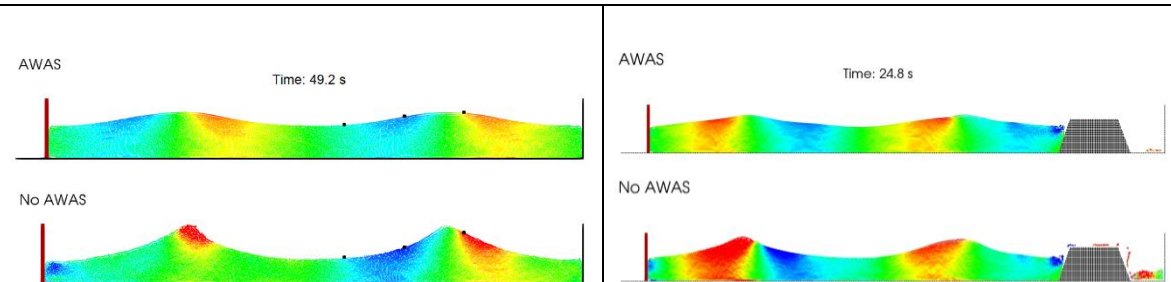
| 11_FLOATING		
• 3-D floating box in a wave tank with Periodicity in Y direction and piston with sinusoidal movement. Delta-SPH is used. Video • 2-D falling sphere that uses laminar+SPS viscosity. Validation data from [Fekken, 2004] and [Moyo and Greenhow, 2000]. Video		
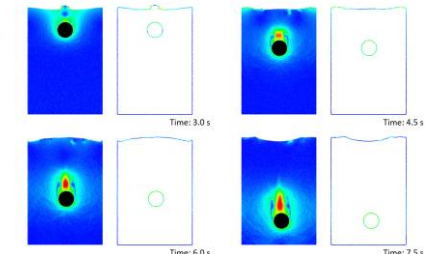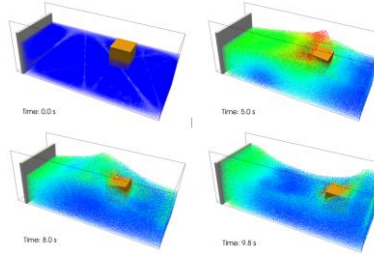
| 12_FLOATINGWAVES		
• 2-D floating box under the action of non-linear waves in a tank with flap that reads rotational motion from an external file and uses laminar+SPS viscosity. Video Validation data (motions of the box) from [Hadzic et al., 2005]. • 2-D floating box under the action of regular waves in a tank with piston. Video Validation data (motions of the box) from [Ren et al., 2015].		
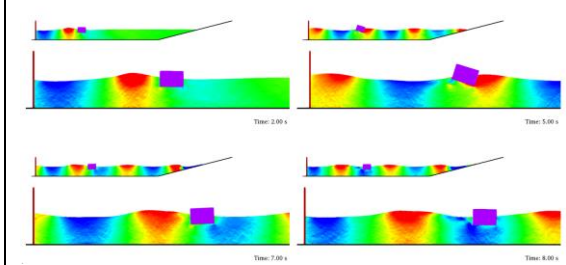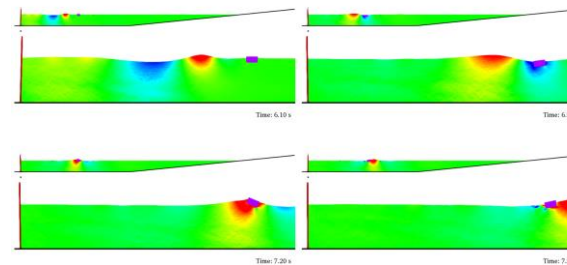
13_PUMP	
• 3-D external geometries are imported (STL) and filling algorithm is used. Video Rotational movement is imposed.	
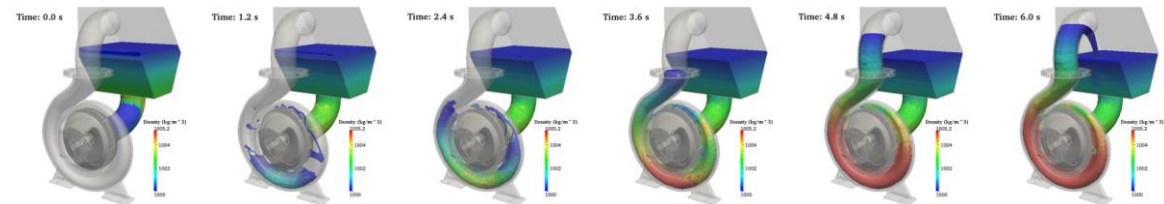
14_DEM	
• 2-D case only with DEM of a ball that impacts with blocks. Example without fluid particles. Video • 3-D dam-break and blocks where interaction between blocks and with walls used DEM and properties of materials. Delta-SPH is also used. Video • 2-D case with 2000 floating objects that interact in terms of DEM approach. Video	
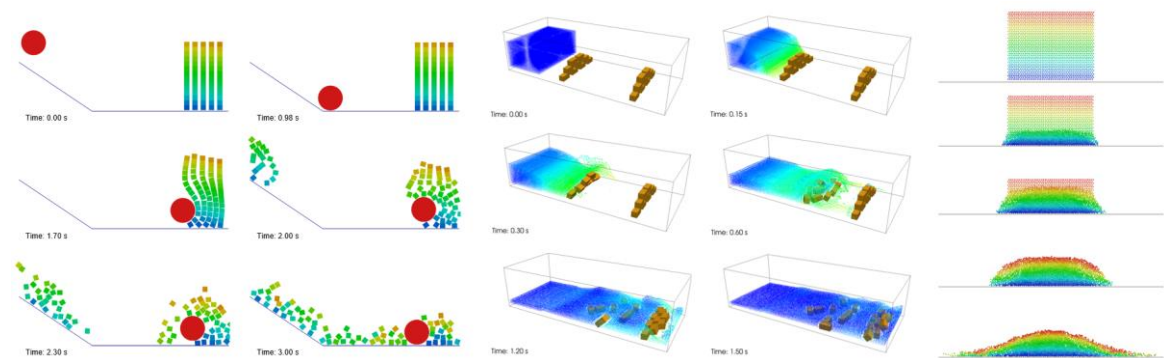
15_POISEUILLE	
• 2-D case of Poiseuille flow with laminar+SPS viscosity and using high resolution. Video	