```
<?xml version="1.0" encoding="UTF-8" ?>
    <casedef>
        <constantsdef>
            <lattice bound="1" fluid="1" />
            <gravity x="0.0" y="0.0" z="-9.81" comment="Gravitational acceleration" units_comment="m/s^2" />
            <rhop0 value="1000.0" comment="Reference density of the fluid" units_comment="kg/m^3" />
            <hswl value="0.0" auto="true" comment="Maximum still water level to calculate speedofsound using coefsound" units_comment="metres (m)" />
            <gamma value="7.0" comment="Polytropic constant for water used in the state equation" />
            <speedsystem value="0.0" auto="true" comment="Maximum system speed (by default the dam-break propagation is used)" />
            <coefsound value="20.0" comment="Coefficient to multiply speedsystem" />
            <speedsound value="0.0" auto="true" comment="Speed of sound to use in the simulation (by default speedofsound=coefsound*speedsystem)" />
            <coefh value="1.0" comment="Coefficient to calculate the smoothing length (h=coefh*sqrt(3*dp^2) in 3D)" />
            <cflnumber value="0.2" comment="Coefficient to multiply dt" />
            <h value="0.0" auto="true" units_comment="metres (m)" />
            <b value="10.0" auto="false" units_comment="Pascal (Pa)" />
            <massbound value="0" auto="true" units_comment="kg" />
            <massfluid value="0" auto="true" units_comment="kg" />
        </constantsdef>
        <mkconfig boundcount="241" fluidcount="9">
        </mkconfig>
        <geometry>
            <definition dp="0.01" comment="Initial inter-particle distance" units_comment="metres (m)">
                <pointmin x="0.3" y="0.0" z="0.3" />
                <pointmax x="0.6" y="0.0" z="0.6" />
            </definition>
            <commands>
                <mainlist>
                <setshapemode>actual | dp | bound</setshapemode>
                <setmkbound mk="0"/>
                <setdrawmode mode="face"/>
                <drawbox objname="Cube">
                    <boxfill>solid</boxfill>
                    <point x="0.4" y="-0.05" z="0.4" />
                    <size x="0.1" y="0.1" z="0.1" />
                </drawbox>
                <shapeout file="" />
                </mainlist>
            </commands>
        </geometry>
        <properties>
            <propertyfile file="materials.xml" path="materials" />
            <links>
                <link mkbound="0" property="steel" />
            </links>
        </properties>
        <motion>
            <objreal ref="0">
                <begin mov="1" start="0"/>
                <mvrotsinu id="1" duration="0.0" anglesunits="degrees" next="1">
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<freq v="0.5" units_comment="1/s" />
<ampl v="0.14" units_comment="degrees" />
<phase v="0.0" units_comment="degrees" />
<axisp1 x="0.0" y="-1.0" z="0.0" />
<axisp2 x="0.0" y="1.0" z="0.0" />
</mvrotsinu>
</objreal>
</motion>
</casedef>
<execution>
<special>
<initialize>
</initialize>
</special>
<parameters>
<parameter key="SavePosDouble" value="0" comment="Saves particle position using double precision (default=0)" />
<parameter key="Boundary" value="1" comment="Boundary method 1:DBC, 2:mDBC (default=1)" />
<parameter key="StepAlgorithm" value="2" comment="Step Algorithm 1:Verlet, 2:Symplectic (default=1)" />
<parameter key="VerletSteps" value="40" comment="Verlet only: Number of steps to apply Euler timestepping (default=40)" />
<parameter key="Kernel" value="2" comment="Interaction Kernel 1:Cubic Spline, 2:Wendland (default=2)" />
<parameter key="ViscoTreatment" value="1" comment="Viscosity formulation 1:Artificial, 2:Laminar+SPS (default=1)" />
<parameter key="Visco" value="0.01" comment="Viscosity value" /> % Note alpha can depend on the resolution. A value of 0.01 is recommended for near irrotational flows.
<parameter key="ViscoBoundFactor" value="1" comment="Multiply viscosity value with boundary (default=1)" />
<parameter key="DensityDT" value="0" comment="Density Diffusion Term 0:None, 1:Molteni, 2:Fourtakas, 3:Fourtakas(full) (default=0)" />
<parameter key="DensityDTvalue" value="0.1" comment="DDT value (default=0.1)" />
<parameter key="Shifting" value="0" comment="Shifting mode 0:None, 1:Ignore bound, 2:Ignore fixed, 3:Full (default=0)" />
<parameter key="ShiftCoef" value="-2.0" comment="Coefficient for shifting computation (default=-2)" />
<parameter key="ShiftTFS" value="0.0" comment="Threshold to detect free surface. Typically 1.5 for 2D and 2.75 for 3D (default=0)" />
<parameter key="RigidAlgorithm" value="2" comment="Rigid Algorithm 1:SPH, 2:DEM, 3:CHRONO (default=1)" />
<parameter key="FtPause" value="0.0" comment="Time to freeze the floatings at simulation start (warmup) (default=0)" units_comment="seconds" />
<parameter key="CoefDtMin" value="0.05" comment="Coefficient to calculate minimum time step dtmin=coefdtmin*h/speedsound (default=0.05)" />
<parameter key="#DtIni" value="0.0001" comment="Initial time step (default=h/speedsound)" units_comment="seconds" />
<parameter key="#DtMin" value="1e-05" comment="Minimum time step (default=coefdtmin*h/speedsound)" units_comment="seconds" />
<parameter key="DtAllParticles" value="0" comment="Velocity of particles used to calculate DT. 1:All, 0:Only fluid/floating (default=0)" />
<parameter key="TimeMax" value="1.0" comment="Time of simulation" units_comment="seconds" />
<parameter key="TimeOut" value="0.01" comment="Time out data"

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units_comment="seconds" />
                <parameter key="PartsOutMax" value="1.0" comment="%/100 of fluid particles allowed to be excluded from domain (default=1)" units_comment="decimal" />
                <parameter key="RhopOutMin" value="700" comment="Minimum rhop valid (default=700)" units_comment="kg/m^3" />
                <parameter key="RhopOutMax" value="1300" comment="Maximum rhop valid (default=1300)" units_comment="kg/m^3" />
            </parameters>
        </execution>
</case>
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