

Animation Corrosion and Erosion

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Three different parts

Erosion

Sedimentations

Corrosion

Demo

<http://www.amath.unc.edu/Faculty/mucha/Reprints/EGNPerosion.pdf>

Algorithm

Run rigid fluid simulation step

Calculate fluid velocity field

Subtract or add matter

Level sets

3D grid

negative means inside the object

Separate grids

Separate grids for simulation and each object.

Allows rigid body simulation.

Allows separation of objects.

Transform into each other coordinate systems

Linear interpolation

Erosion

Erosion rate by Partheniades equation.

Depends on shear stress.

Some magic constants.