

TPA 7: Simulating Flow (water) Patterns

Objective:

Simulating flow patterns due to:

- i. Sea waves hitting land
- ii. Two waves interacting or intersecting
- iii. Water release from reservoir creating a gush of waves (as in flood), and passing through a curvilinear way (river, canal).

Output:



References:

1. Synthesizing waves from animated height fields. Michael B. Nielsen, Andreas Söderström, and Robert Bridson. 2013. ACM Trans. Graph. 32, 1, Article 2 (February 2013), 9 pages. <http://doi.acm.org/10.1145/2421636.2421638>
2. "Fast and stable simulation of virtual water scenes with interactions." Liu, Shiguang, and Yuan Xiong. Virtual Reality 17.1 (2013): 77-88.
3. A vortex particle method for smoke, water and explosions, Andrew Selle, Nick Rasmussen, and Ronald Fedkiw. 2005. In ACM SIGGRAPH 2005 Papers (SIGGRAPH '05), Markus Gross (Ed.). ACM, New York, NY, USA, 910-914. <http://doi.acm.org/10.1145/1186822.1073282>
4. Multilevel vorticity confinement for water turbulence simulation. Taekwon Jang, Heeyoung Kim, Jinhyuk Bae, Jaewoo Seo, Junyong Noh. The Visual Computer. June 2010.

http://www.huffingtonpost.co.uk/2013/04/25/water-simulation-from-physx_n_3152949.html

5. Real-time Breaking Waves for Shallow Water Simulations; Nils Thurey, Matthias Muller-Fischer, Simon Schirm, Markus Gross.

