CE 5362 Surface Water Modeling
Project 5

Introduction and Purpose

SToRM is a component of the USGS Multi-Dimensional Surface Water Modeling System (McDonald and others, 2012) SToRM is one of a generation of recently available 2–D hydrodynamic models available without charge or for low cost. In the next several exercises you will apply SToRM to several test situations where actual measurements are available in part to test the tool itself at physical scales that differ by about an order of magnitude, and to develop the skill set necessary to use the tool for an arbitrary situation.

Problem Statement

1. Replicate the Green River example presented in class. As output produce a vector plot of the velocity field and a streamline plot. The purpose is to convince yourself you can operate the software.
2. Simulate a rectangular channel.
3. Simulate a rectangular channel with an inclusion.

References

USGS Geomorphology Laboratory (2011). System for Transport and River Modeling. `http://wwwbrr.cr.usgs.gov/projects/GEOMORPH_Lab/project-SToRM.html` Webpage last accessed, 12 Jan 2012.

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