

1014-ZC-1348

Shuyu Sun* (shuyu@ices.utexas.edu) and **Mary Wheeler**. *Algorithms for modeling flow and reactive transport in porous media.*

Algorithms which preserve mathematical properties of physical systems, such as local mass conservation and continuous fluxes, are important in modeling flow and reactive transport in porous media. In this presentation, we will find approximate solutions to our models by employing specialized finite element methods that utilize dynamic time and spatial adaptivity. (Received September 27, 2005)