

Building a “hydrological model” on an “equation friendly” platform

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A numerical platform, PDEase, is adopted to build a hydrological model for the study of the coupled deformation-pore pressure effects due to dynamic events. PDEase is a “scripted” finite element model builder and numerical solver. Based upon a script provided by the user, PDEase performs the operations necessary to turn a system of partial differential equations into a finite element model, solve the system, and present graphical output of the results. With the flexibility of handling the appropriate equations to fit the particular purpose, PDEase program provides an adequate visualization approach for the interpretation of the numerical results and easy manipulation of parametric studies.