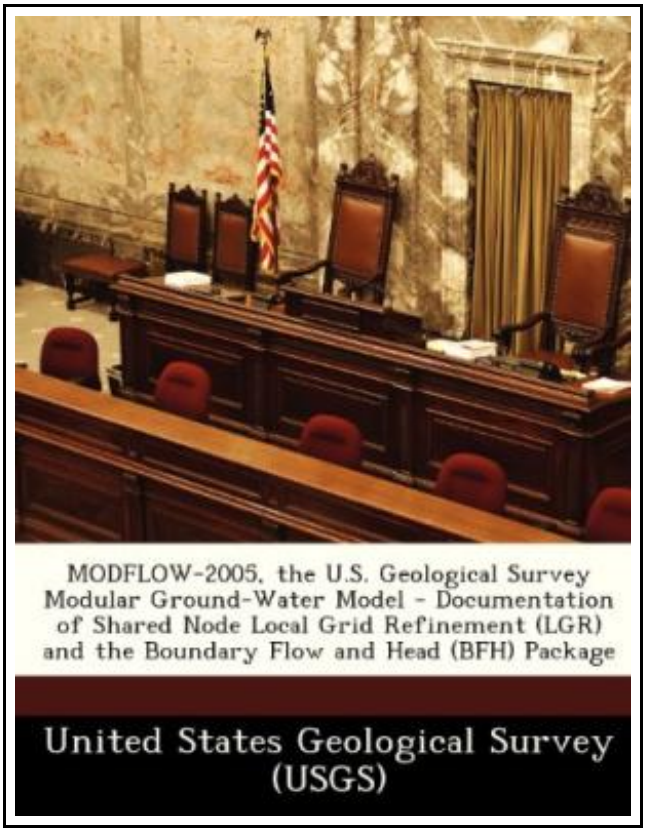
Modflow-2005, the U.S. Geological Survey Modular Ground-Water Model - Documentation of Shared Node Local Grid Refinement (Lgr) and the Boundary Flow and Head (Bfh) Package (Paperback)



Filesize: 3.21 MB

Reviews

Complete guideline for ebook enthusiasts. It really is loaded with knowledge and wisdom Once you begin to read the book, it is extremely difficult to leave it before concluding.
(Delilah Hansen)

MODFLOW-2005, THE U.S. GEOLOGICAL SURVEY MODULAR GROUND-WATER MODEL - DOCUMENTATION OF SHARED NODE LOCAL GRID REFINEMENT (LGR) AND THE BOUNDARY FLOW AND HEAD (BFH) PACKAGE (PAPERBACK)

To read **Modflow-2005, the U.S. Geological Survey Modular Ground-Water Model - Documentation of Shared Node Local Grid Refinement (Lgr) and the Boundary Flow and Head (Bfh) Package (Paperback)** eBook, please follow the web link under and download the ebook or get access to additional information that are highly relevant to MODFLOW-2005, THE U.S. GEOLOGICAL SURVEY MODULAR GROUND-WATER MODEL - DOCUMENTATION OF SHARED NODE LOCAL GRID REFINEMENT (LGR) AND THE BOUNDARY FLOW AND HEAD (BFH) PACKAGE (PAPERBACK) book.

Bibliogov, United States, 2012. Paperback. Book Condition: New. 241 x 185 mm. Language: English . Brand New Book ***** Print on Demand *****.This report documents the addition of shared node Local Grid Refinement (LGR) to MODFLOW-2005, the U.S. Geological Survey modular, transient, three-dimensional, finite-difference ground-water flow model. LGR provides the capability to simulate ground-water flow using one block-shaped higher-resolution local grid (a child model) within a coarser-grid parent model. LGR accomplishes this by iteratively coupling two separate MODFLOW-2005 models such that heads and fluxes are balanced across the shared interfacing boundary. LGR can be used in two-and three-dimensional, steady-state and transient simulations and for simulations of confined and unconfined ground-water systems. Traditional one-way coupled telescopic mesh refinement (TMR) methods can have large, often undetected, inconsistencies in heads and fluxes across the interface between two model grids. The iteratively coupled shared-node method of LGR provides a more rigorous coupling in which the solution accuracy is controlled by convergence criteria defined by the user. In realistic problems, this can result in substantially more accurate solutions and require an increase in computer processing time. The rigorous coupling enables sensitivity analysis, parameter estimation, and uncertainty analysis that reflects conditions in both model grids. This report describes the method used by LGR, evaluates LGR accuracy and performance for two- and three-dimensional test cases, provides input instructions, and lists selected input and output files for an example problem. It also presents the Boundary Flow and Head (BFH) Package, which allows the child and parent models to be simulated independently using the boundary conditions obtained through the iterative process of LGR.

Other Books