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基于区域分解法的地下水有限元与边界元耦合模型—淄博市王旺庄水源地地下水数值模拟 [点此下载全](#)  
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摘要:

区域分解法(DDM)是20世纪90年代兴起的一种求解偏微分方程的新方法,方法本身独到的耦合思想和高效的、大型的地下水问题具有相当的优势和广阔的应用前景。本文以淄博市王旺庄水源地地下水流模型为例,应构造了边界单元法(BEM)与有限单元法(FEM)耦合模型,在两种数值方法各自优点的基础上,更形象地再现了实际人为边界造成的流场失真。

关键词: [淄博市](#) [地下水模拟](#) [区域分解法](#) [边界单元法](#) [有限单元法](#) [耦合模型](#) [DDM](#)

A Groundwater Flow Domain Decomposition Model Coupling the Boundary and Finite Element  
Groundwater Numerical Simulation of the Wangwangzhuang Water Source Area of Zibo City

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Abstract:

The domain decomposition method (DDM) is a new method that sprung up in the 1990s for solving equation. It has its advantages and wide application perspectives for solving complicated and large in view of the unique combined method and high-effective parallel computing theory in itself. A groundwater flow domain decomposition model coupling the boundary element method (BEM) and the finite element method (FEM) is made through the overlapping iterative domain decomposition which makes use of their advantages and shows an excellent agreement between the groundwater simulation results and the actual geological conditions, and effectively eliminates the distortion of the groundwater flow field caused by artificial boundary.

Keywords: [groundwater simulation](#) [domain decomposition method](#) [boundary element method](#) [finite element method](#)

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