

## 井间地震数据的波动方程偏移成像

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**摘要** 针对井间地震数据成像技术的一些缺陷并根据井间地震数据的特点, 利用井间上、下行反射波信息, 提出了一种基于波动方程的井间地震反射波偏移成像技术, 该技术既考虑了井间地震数据的运动学特征(时间信息), 又考虑了动力学特征(振幅信息). 以PC机集群为计算平台, Linux为操作系统, 设计了井间地震炮域波动方程偏移成像并行计算流程, 并且在64位联想机群上用井间模型数据和某油田的实际数据对该技术和计算流程进行了测试和试处理, 试验结果表明成像方法和并行算法正确、实用且计算效率高.

**关键词** [井间地震](#) [井间反射波](#) [波动方程](#) [并行计算](#) [偏移成像](#)

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## Wave equation migration imaging of cross-well seismic data

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**Abstract** Aiming at the defects of cross-well imaging, combined with the characteristics of cross-well seismic data, a cross-well seismic reflection migration imaging technique was developed by utilizing the up-going and down-going reflection information. The technique has considered the kinematics characteristics (time information) and the kinetics characteristics (amplitude information) of cross-well data. Taking PC group as calculation platform and Linux as operation system, the workflow of parallel computation was developed. The technique and computation program were tested and preprocessed on 64 bit Lianxiang computer group by using cross-well model data and actual data from one oilfield. The results show that the method and parallel computation is correct and feasible, and has high computational efficiency.

**Key words** [Cross-well seismic](#) [Cross-well reflection](#) [Wave equation](#) [Parallel computation](#) [Migration imaging](#)

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