

方法技术

基于地震时窗属性特征拾取初至方法对比研究

孙淑琴, 王彦春, 何巍巍, 谭琴辉

中国地质大学(北京)地下信息探测技术与仪器教育部重点实验室, 北京100083

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摘要 为了提高复杂地区初至拾取的精度和效率, 对基于地震道时窗属性特征拾取初至的能量比法、振幅比法、瞬时强度比法和曲线长度比法进行了对比研究, 着重分析了4种方法的拾取精度。研究表明: 4种方法都能准确、有效地拾取初至, 能量比法和瞬时强度比法拾取精度明显高于振幅比法和曲线长度比法; 通过变换滑动时窗长度和加入稳定因子, 4种方法都能更准确、更有效地拾取初至。

关键词 [时窗属性](#); [能量比](#); [振幅比](#); [初至](#)

Comparative study of window attribute based first arrival picking methods

Sun Shuqin, Wang Yanchun, He Weiwei, Tan Qinhui

Sun Shuqin, Key Laboratory of Underground Information Detection Technique and Instrument of Ministry of Education; China University of Geosciences, Beijing 100083, China

Abstract Four methods of picking first arrival based on window attribute of seismic trace are studied in the paper. The 4 methods are energy ratio method, amplitude ratio method, instantaneous intensity ratio method and curve length ratio method. Results show that the 4 methods can all detect the first arrival effectively. The accuracy of the energy ratio method and the instantaneous intensity ratio method are significantly higher than that of the amplitude ratio method and the curve ratio method. Introduction of changeable sliding window length and stabilizer further improve the accuracy of the 4 methods.

Key words [time window attribute](#); [energy ratio](#); [amplitude ratio](#); [first arrival](#)

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通讯作者:

作者个人主页: [孙淑琴](#); [王彦春](#); [何巍巍](#); [谭琴辉](#)

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