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基于拉东变换的瑞雷面波频散分析与应用

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Dispersion analysis of Rayleigh surface waves and application based on Radon transform

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摘要	参考文献	相关文章

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摘要 为克服面波谱分析法(SASW)提取频散曲线抗干扰能力差、不能得到多模式频散曲线等缺点,对拉东变换法进行了改进
记录进行数字处理,避免了数字处理效应的影响.通过对信号的频谱分析、结合场地的地质条件,选择频散分析的频率、速度范
规避高视速度的直达波、反射波.理论模型合成记录和实际资料的处理表明:研究的频散分析方法是有效的且适应性强,取得了
果.

关键词： 瑞雷波   频散分析   面波合成记录   拉东变换

Abstract： To overcome the weakness of SASW method, such as, low precision and the difficulty to ca
high-mode dispersion curves, the computation of velocity dispersion with Radon transform method is impr
this paper, which does not use any digital processing of the original data and avoids the impact of digital
processing like Gibbs effect. However it discriminates the direct waves and reflected waves using the fre
analysis and the geological condition of the sites to choose frequency and velocity range. It is further ve
that the velocity dispersion method is valid and credible by processing synthetic surface wave record an
data, which produced good results.

Keywords： Rayleigh-wave   Frequency-dispersion analysis   Synthetic seismograms of surface wave   I
transform