

数学与系统科学研究院
计算数学所网络学术报告

报告人: **Prof. Zhou Hui**

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报告题目:

**Reverse-time migration using
fractional Laplacian viscoacoustic
wave equation**

邀请人: 张文生 研究员

报告时间: 2020 年 12 月 17 日(周四)

上午 10:00-11:00

报告工具: 腾讯会议 (ID: 530 372 697)

会议链接:

<https://meeting.tencent.com/s/Mhi8EQ1etiU9>

Abstract:

The amplitude attenuation and phase distortion caused by the viscosity of subsurface formations occur in the path of seismic wave propagation, so it is more reasonable to compensate these effects in prestack depth migration. Attenuation compensation is generally unstable. In order to solve the instability in the compensation process, we develop two stabilization compensation strategies. First, we propose an adaptive time-varying filter stabilizing absorption attenuation compensation method in order to solve the problem that the traditional time invariant filtering scheme cannot adapt to the Q change and the compensation depth or time change during the attenuation compensation. Second, a stable absorption attenuation compensation method is developed by constructing a stable compensation factor in the imaging condition. In the reverse-time migration, we use the fractional Laplacian viscoacoustic wave equation, which can be in good agreement with the constant Q model and correct both amplitude loss and waveform deformation.

欢迎大家参加！