

数学与系统科学研究院

计算数学所学术报告

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报告题目:

**Some recent results for
waveform based
earthquake location**

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报告时间: 2017 年 6 月 5 日 (周一)

下午 16:00-17:00

报告地点: 科技综合楼三层

311 报告厅

Abstract:

The waveform based earthquake location is essentially a PDE-constraint optimization problem. In this talk, we will present some newly developed techniques. (i) We convert the original optimization problem into the problem of finding the zero point of the auxiliary functions. But the computational cost is significantly less than that of the iterative methods. (ii) We apply the famous Wasserstein metric to locate the earthquake. The convexity of the misfit function with respect to the earthquake hypocenter and the origin time can be observed. Even for large data noise, these methods could locate the earthquake with reasonable accuracy. These approaches provide fast and accurate methods to locate the earthquakes, which may be useful for the earthquake real-time locating and the earthquake relocation.

欢迎大家参加！