Non-radiating sources for the elastic waves in anisotropic inhomogeneous media

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Abstract

In this talk, I would like to discuss the characterization of non-radiating volume and surface (faulting) sources for the elastic waves in anisotropic inhomogeneous media. Each type of the source can be decomposed into a radiating part and a non-radiating part. The radiating part can be uniquely determined by an explicit formula containing the near-field measurements. On the other hand, the non-radiating part does not induce scattered waves at a certain frequency. In other words, such non-radiating sources can not be detected by measuring the field at one single frequency in a region outside of the domain where the source is located. This is a recent joint work with Pu-Zhao Kow.