



# FMSP Lectures

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## Multiscale simulations of waves and applications

August 12 (Fri) 15:00 ~ 16:00 Room 128

### Abstract:

Numerical simulations of wave propagation in heterogeneous media are important in many applications such as seismic propagation and seismic inversion.

In this talk, we will present a new multiscale approach for seismic wave propagation.

The method is able to compute the solution with much fewer degrees of freedom compared with fine mesh simulation.

The idea is to capture the multiscale features of the solutions by carefully designed multiscale basis functions.

We will also present applications to inverse problems.