

### 任务要求:

Mie scattering produces attenuation

说明米氏散射产生衰减

% Suggestion: build an uniform medium, insert a source in the center of

% the model and 2 receivers, one on the left and one

% on the right of the source, simmetrically.

建议: 建立一个统一的介质, 在模型中心插入一个源

2 个接收器, 一个在左边, 一个在源的右侧, 对称。

Now, on one of the 2 sides of the source, add to the velocity model

random variations (zero mean, anomalies below wavelength) and

随机变化 (零均值, 波长以下的异常)

verify on the seismic traces that the wavefront crossing the "noisy" zone is more attenuated

在地震轨迹上验证波前穿过“噪声”区域是更衰减的

### 任务描述:

The medium is uniform ( $v \approx 500$  m/s) on the left half ( $x \leq 250$  m) and “noisy” on the right half ( $x > 250$  m), where I add zero-mean random velocity perturbations ( $\sigma = 100$  m/s).

## B3

### 任务要求:

% Build a model that "focuses" the wavefield in one direction and/or

% against one target.

% You can use array of sources properly delayed (beam-forming),

% and/or obstacles (reflectors) properly shaped (acoustic lens/horn)

建立一个模型, 将波场“聚焦”在一个方向和/或相对于一个目标。

你可以使用延迟的源阵列 (波束形成), 和/或障碍物 (反射器) 正确形状 (声透镜/喇叭)

## B4

### 任务要求:

% Refraction

% -----

% run the code B04\_exercise.p

% pay attention it will ask in the command window the last 2 digits of your matricola nr

% wait the end of the execution and , on the seismic traces gather, obtain the velocity of the two layers and the depth of the interface

% below the receivers line, using the refraction time intercept method  
折射

-----

运行代码 B04\_exercise.p

请注意，它将在命令窗口中询问您的矩阵 **nr** 的最后两位

等待执行结束，在收集地震痕迹时，使用折射时间截距法获得两层的速度和接收器线以下界面的深度