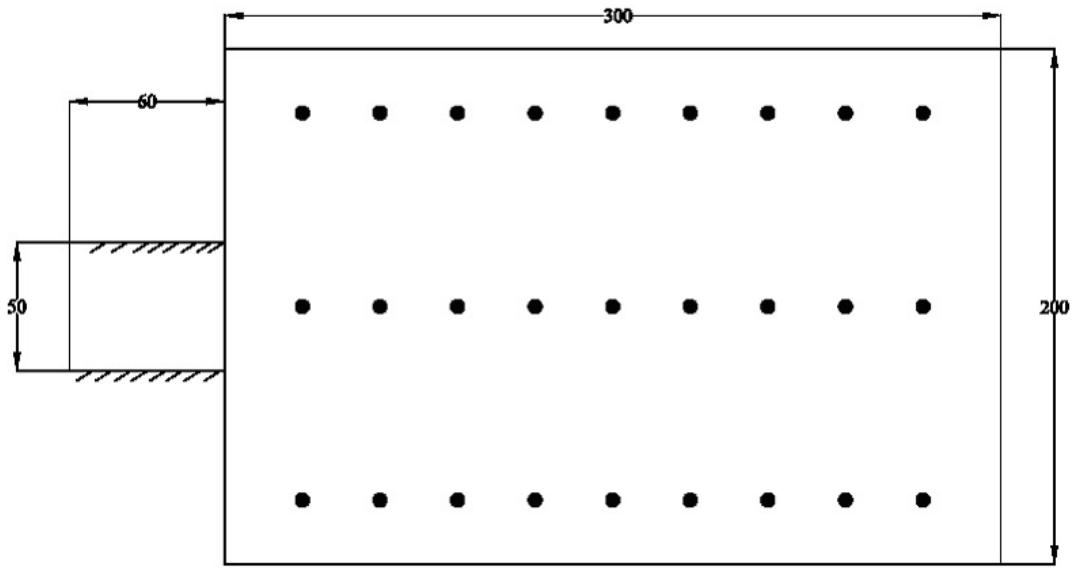


Fig 1

1.A cantilever plate: the length 300mm, the width 200mm, the thickness 6mm; the clamped end dimension : the length 60mm, the width 50mm, the thickness 6mm.(see Fig 1)

2. The Young's modulus 56e9 Pa, the Poisson's ration 0.3, the density 2646kg/m^3.

3. Simulation the transfer function in the frequency domain, giving a hammer force 100N to the point 5, getting the acceleration response in the point 2. (See Fig 2)

How to get?

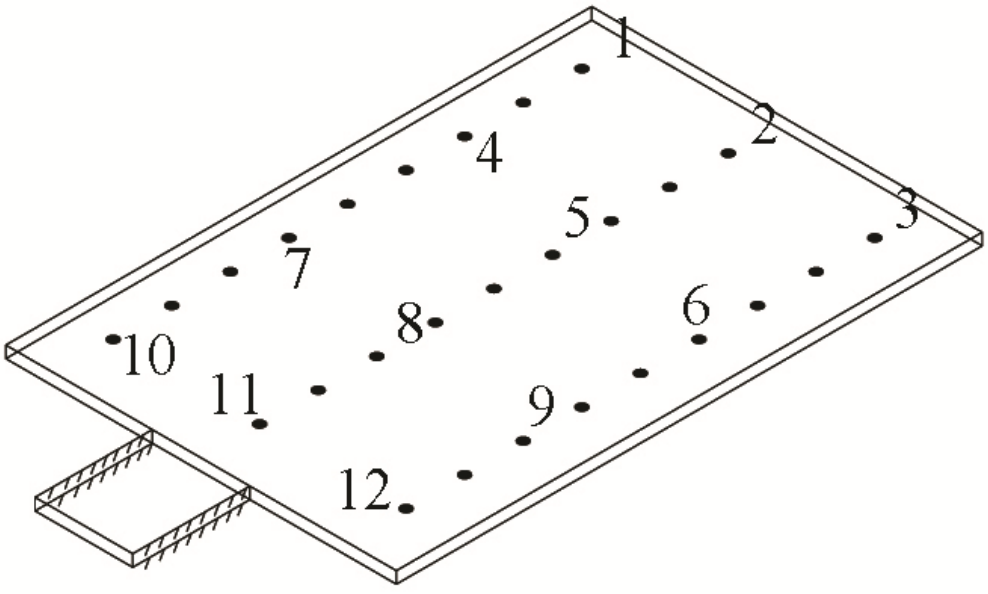


Fig 2

4. The simulation result looks like the Fig 3

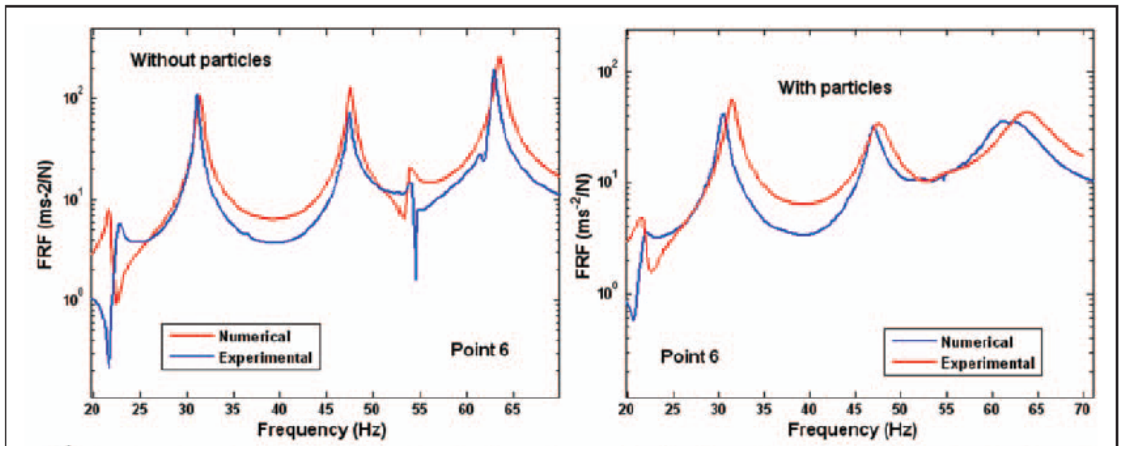


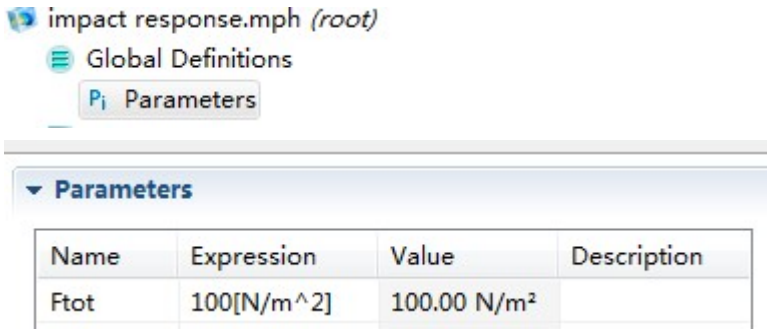
Fig 3

I get some answers from the forum but I can not get final correct result. My process as follows:

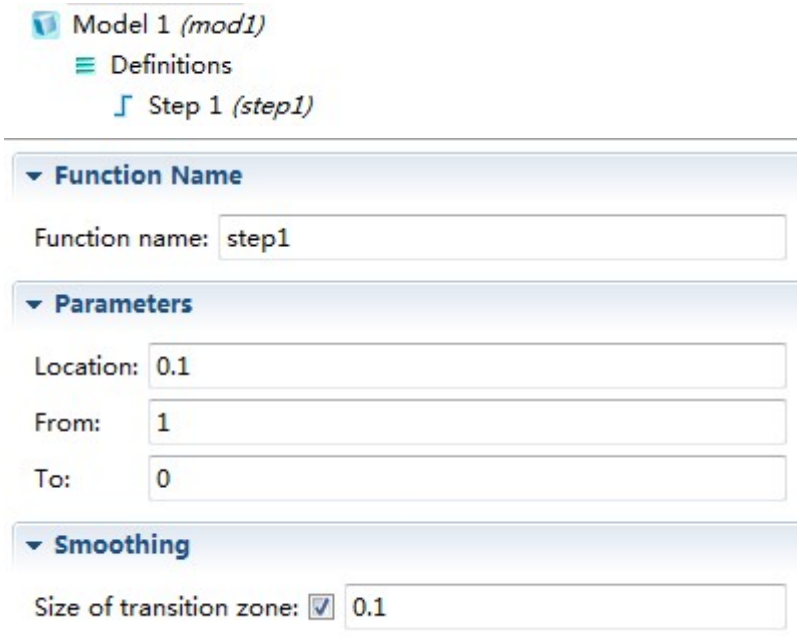
1. First give step function;
2. Study in the time dependent;

How to do in the next step, I don't know?

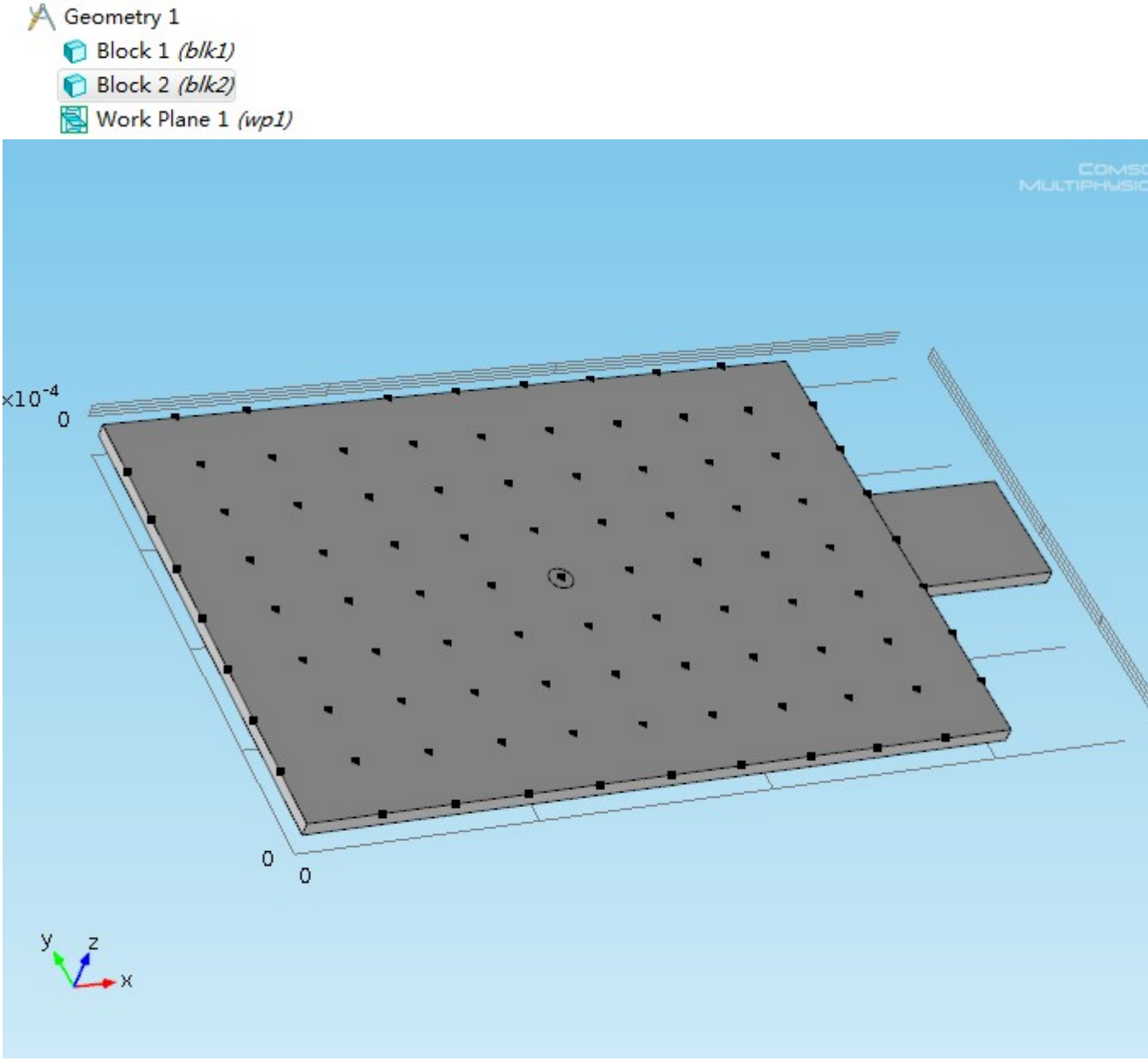
1.



2.



3.



4.

Materials
Material 1 *(mat1)*
Basic *(def)*

Output properties

Property	Variable	Expression
Young's modulus	E	56e9
Poisson's ratio	nu	0.3
Density	rho	2646

5

Solid Mechanics *(solid)*

Linear Elastic Material 1

Damping 1

Damping Settings

Damping type:

Rayleigh damping

Mass damping parameter:

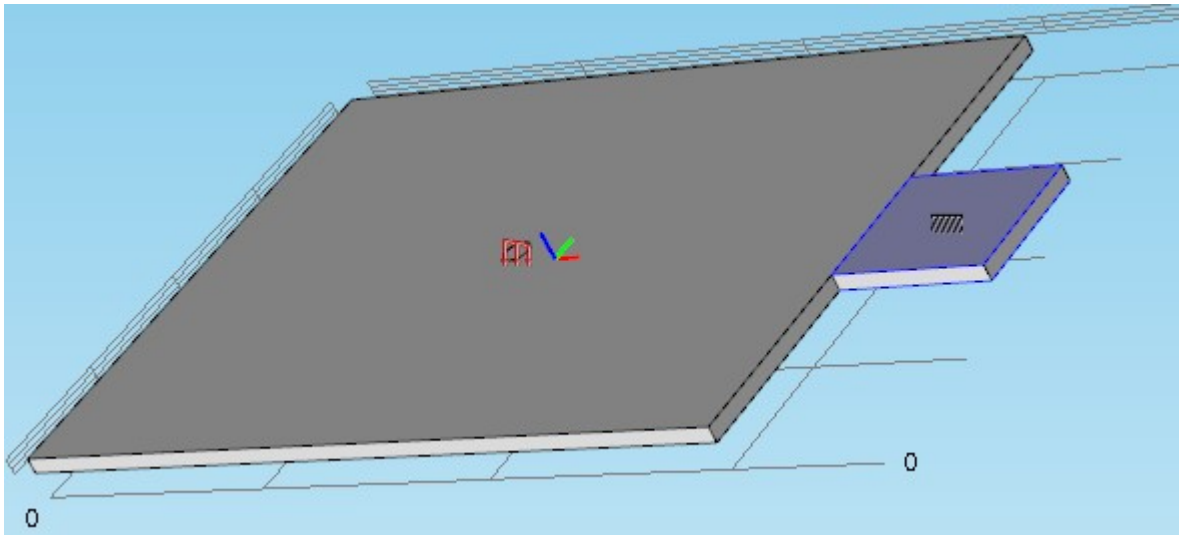
α_{dM} 300 1/s

Stiffness damping parameter:

β_{dK} 3.2e-5 s

6.

Fixed Constraint 1



7.

Boundary Load 1

Load type:

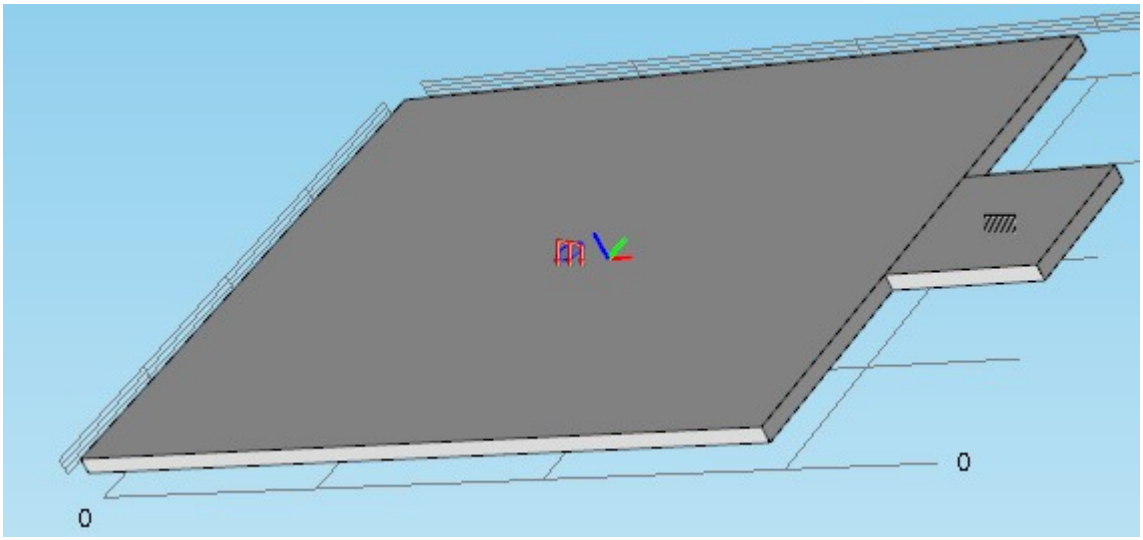
Load defined as force per unit area

Load:

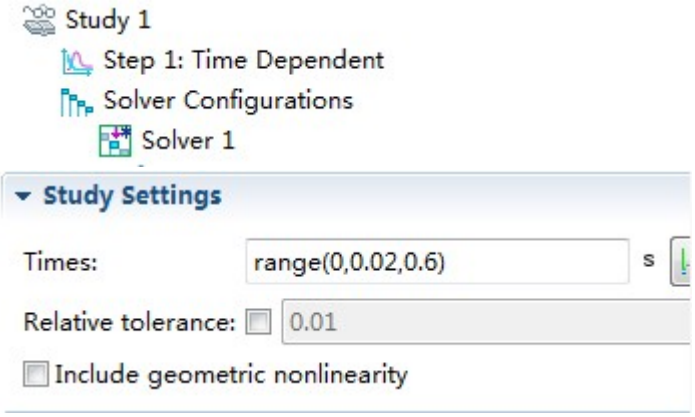
F_A User defined

0	x
0	y
Ftot*step1(t[1/s])	z

N/m^2


0
0

8.


Study 1
Step 1: Time Dependent
Solver Configurations
Solver 1
Study Settings
Times:
range(0,0.02,0.6)
s
Relative tolerance:
0.01
Include geometric nonlinearity