

# Vibrations and Acoustics - Isolation

Number of participants: 31

1

The problem of transmission of vibrations from a tram to the surroundings should be treated as

a direct vibration  
isolation problem



89%

25 votes

an inverse vibration  
isolation problem



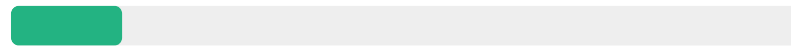
11%

3 votes

2

## In an isolation system, damping is

a good thing



14%

4 votes

a negative thing



0%

0 votes

it depends on the  
frequency of excitation  
and the natural frequency  
of the system



86%

24 votes

**3**

For the direct isolation problem, the isolation domain corresponds to

The location where the vibration is reduced in the system



8%

2 votes

The frequency band in which the force transmitted to the floor is lower than the applied disturbance force



64%

16 votes

The frequency band in which the vibration of the source is reduced



28%

7 votes

4

For the inverse vibration isolation problem,  
the isolation domain corresponds to

A frequency band in which the sensitive equipment vibrates less than the structure to which it is attached



100%

22 votes

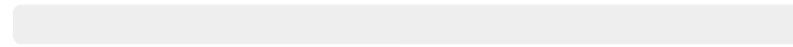
The domain in the system where the vibration is reduced



0%

0 votes

The domain for which thermal insulation is not necessary



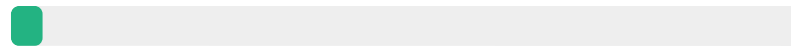
0%

0 votes

5

To achieve isolation, the natural frequency of the mass-spring system should

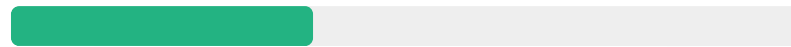
correspond to the frequency range of excitation



4%

1 vote

be much higher than the frequency of excitation



38%

10 votes

be much lower than the frequency of excitation



58%

15 votes



6

In order to increase the isolation domain,  
one can

decrease the stiffness  
of the spring in the  
isolation system



72%

18 votes

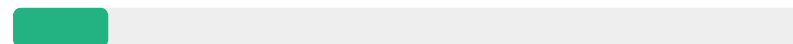
increase the mass of  
the system to isolate



72%

18 votes

increase the damping in  
the isolation system



12%

3 votes

