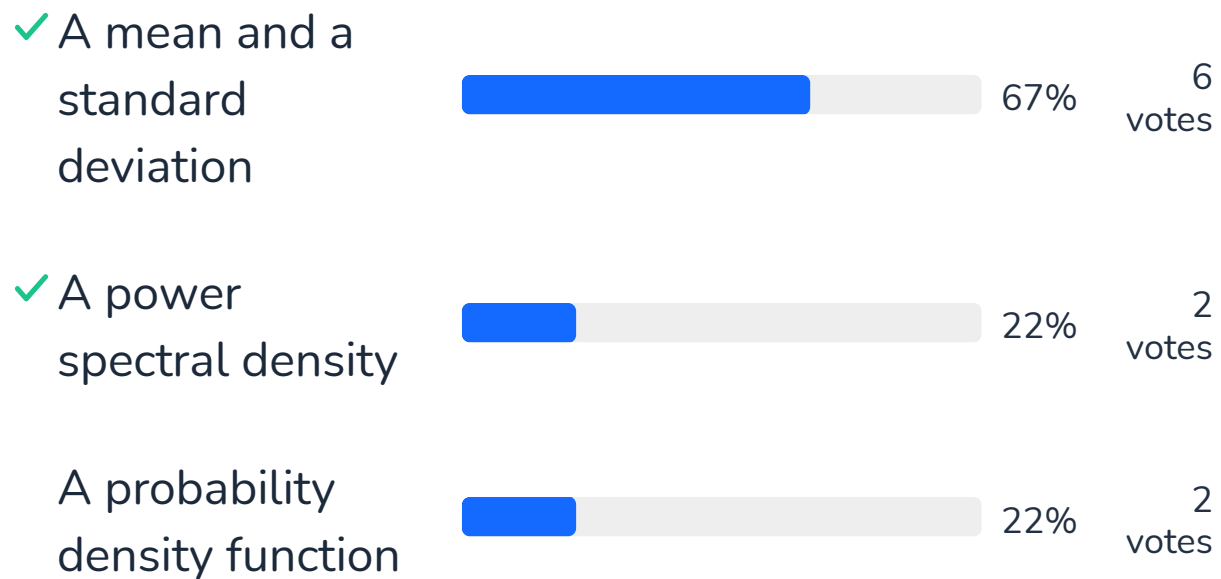


# DOS2021 : Turbulent wind excitation

Number of participants: 10

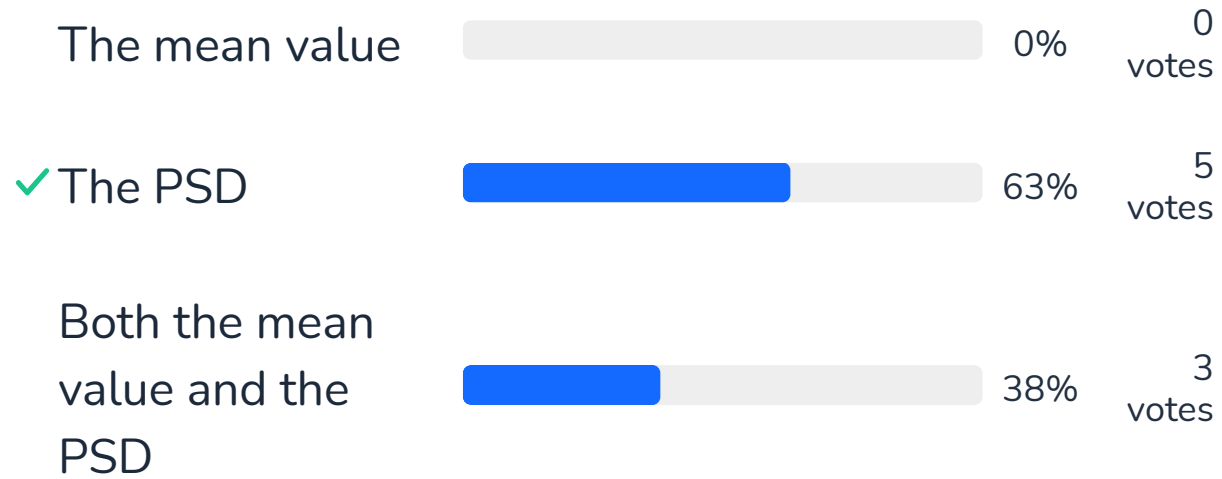
1

Assuming that the wind model is a stationary gaussian process, it is characterized by



2

## The standard deviation can be obtained knowing



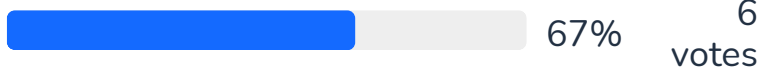
3

A wind spectrum is given as a function of

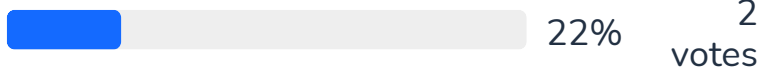
An intensity factor



✓ A non-dimensional frequency

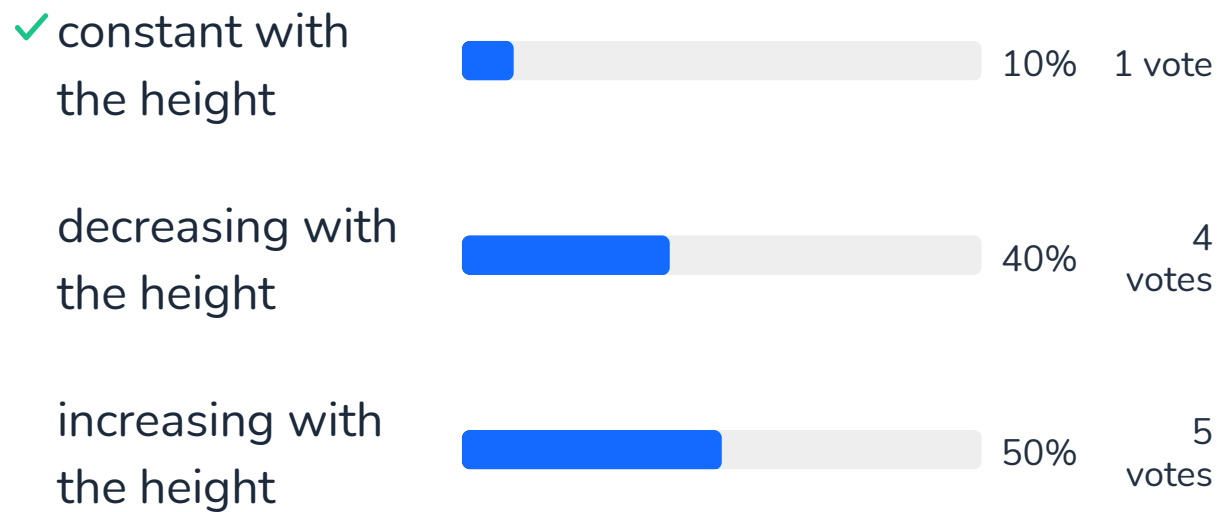


The maximum value of the wind speed



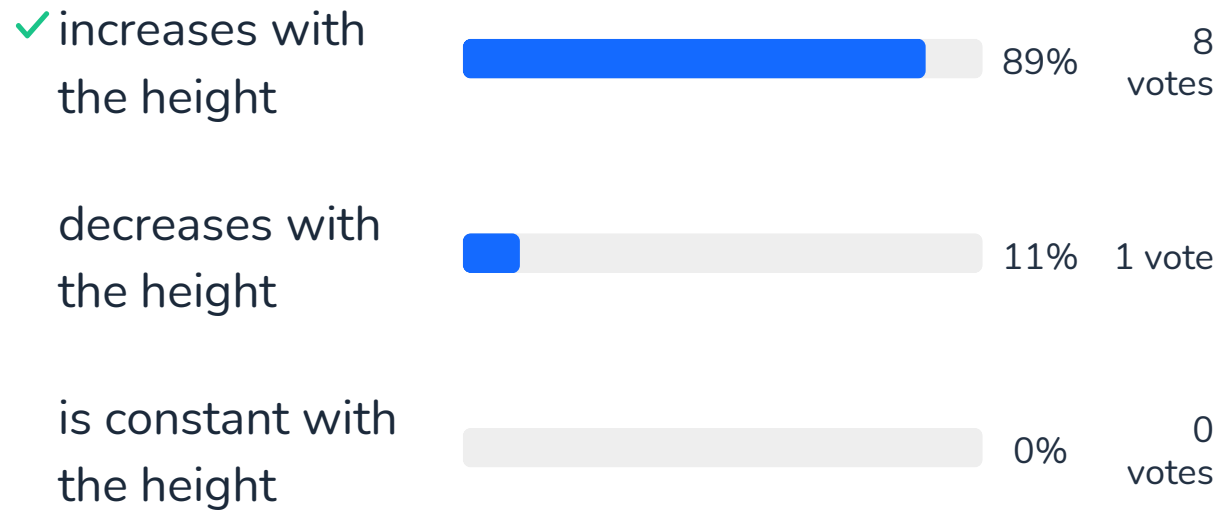
4

## The turbulence is



5

## The mean velocity



6

## The aerodynamic admittance is a factor which

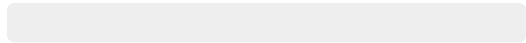
represents the dynamic flexibility of an object



0%

0 votes

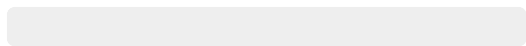
✓ represents the total aerodynamic force acting on an object



0%

0 votes

✓ is larger for small objects



0%

0 votes

7

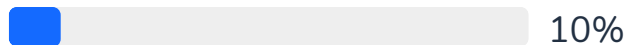
The dynamic force acting on an object due to turbulent flow requires to have access to

The PSD of the wind



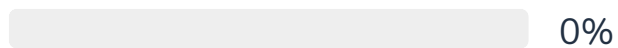
0%  
0 votes

The aerodynamic admittance of the object



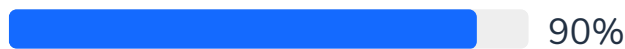
10% 1 vote

An aeroelastic model (quasi-steady)



0%  
0 votes

✓ All of the above



90%  
9 votes



8

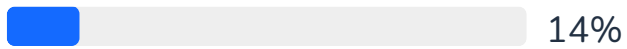
I have watched the video  
about turbulent wind  
excitation

✓ Yes



86%  
6 votes

No



14%  
1 vote

