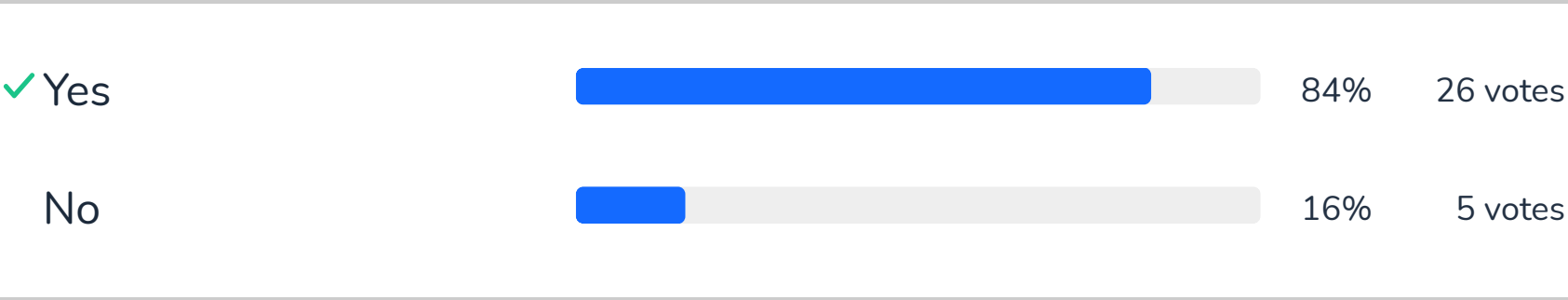
VIB 2021 : Flow induced vibrations

Number of participants: 48

1

I have watched the video on flow induced vibration



2

Which type of flow induced vibrations does this schematic represent ?

Vortex

Vortex flow

Vortex

Vortex inducer

Vortex induced

vortex

Vortex induced vibration

Vortex induced vibrations

Vortex induced vibrations

Vortex induced

Vortex induced

Vortex induced

Vortex induced

Turbulent

Vortex induced

Constant speed

Vortex induced vibrations

Induced vibrations

Vortex induced

Flutter

vortex induced vibration

Turbulence

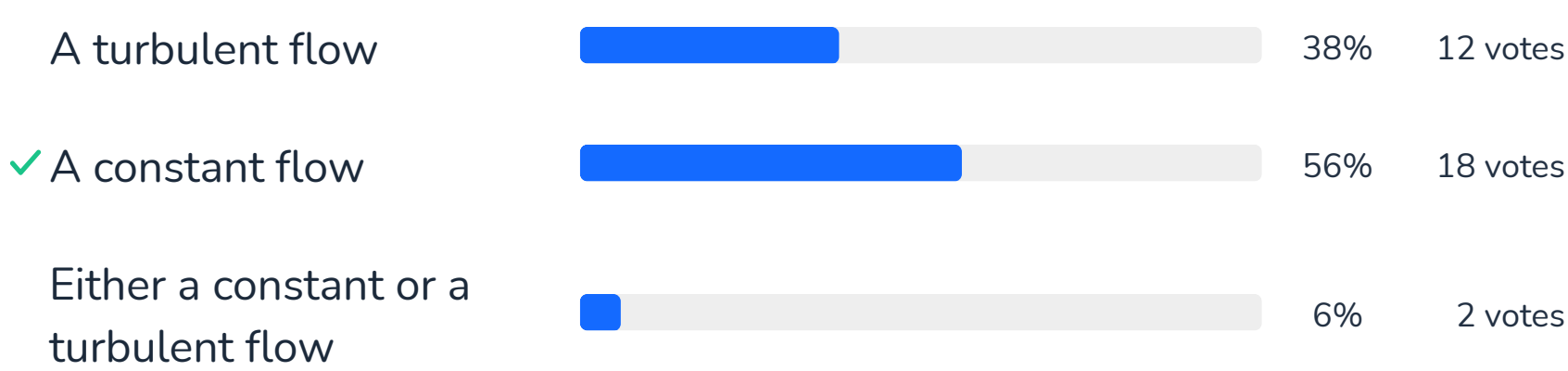
Vortex flow

Wind

Vortex induced vibration

3

Vortex induced vibrations is caused by



4

When a cylinder is excited by VIV it vibrates in the direction

of the flow		0%	0 votes
which depends on the shape of the object		7%	2 votes
✓ perpendicular to the flow		93%	26 votes

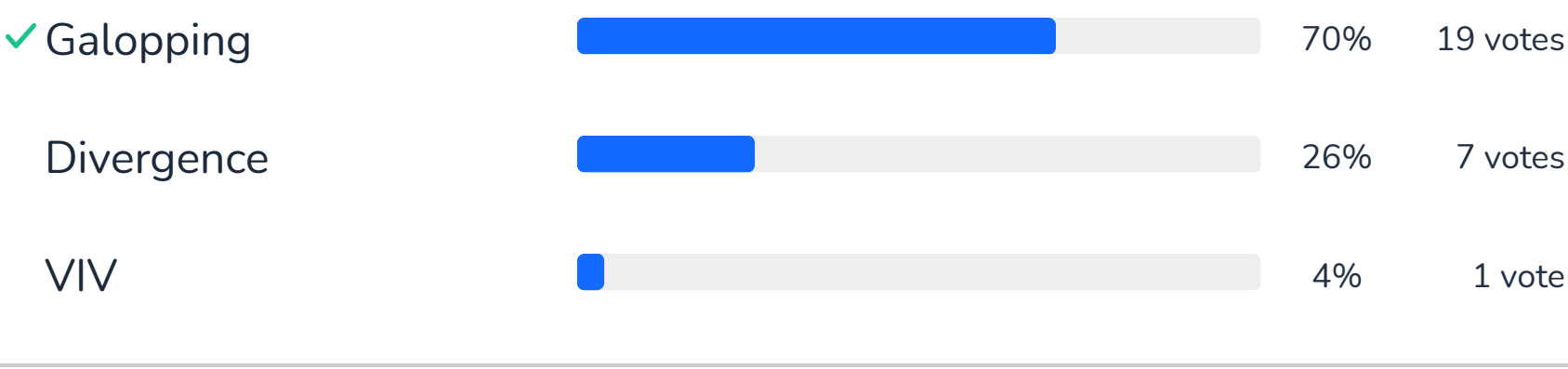
5

In self-excited vibrations, the force Ff due to the flow is proportional to

the displacement of the flexible object		15%	4 votes
the velocity of the flexible object		8%	2 votes
✓ both the displacement and the velocity of the flexible object		77%	20 votes

6

This is an example of



7

This is an example of instability in the form of

Galopping		0%	0 votes
✓ Divergence		73%	19 votes
Coupled mode flutter		27%	7 votes

8

This is an example of instability in the form of

Galopping		0%	0 votes
Divergence		4%	1 vote
✓ Coupled mode flutter		96%	23 votes

9

For a cylinder in a flow, the Strouhal number is a function of

The diameter of the cylinder		5%	1 vote
The wind velocity		0%	0 votes
✓ Both the diameter of the cylinder and the wave velocity		95%	20 votes