

Team Angular Momentum

- You are responsible for a compressor
- The final rotor is failing during testing because of high cycle fatigue, and you are “asked” to fix it.
- You have a choice between two stator rows, A and B:
 - A has a spacing between blades equal to the chord
 - B has the same chord but a spacing between blades of 0.8 chord.
- You don’t have time to change any other components, which stator row should you install and why?

Answer

- The stator with smaller spacing between blades (increased number of blades)
- The upstream influence of the new stator will have a shorter x-scale.
- Concept addressed: Upstream influence