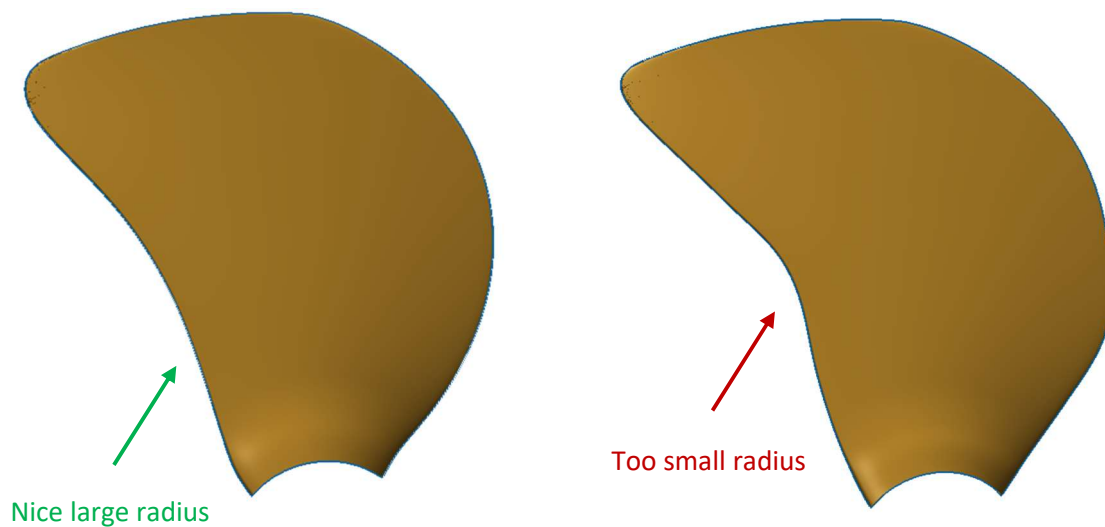




KONGSBERG

Problem Proposal 1 for MiMM 2022, Kongsberg Maritime Sweden AB

In the design of marine propellers, the shape of the blade outline needs to be considered based on several aspects: hydrodynamic performance, strength and manufacturing. For blades of the type shown below an outline with a nice large radius at the trailing edge (the edge to the left – blade rotating to the right) is considered favourable. The blade to the left shows a blade with nice shape while the blade to the right is an example of a blade with a too small radius at the trailing edge.



The blade geometry is defined by several parameters. The shape of the trailing edge is represented by the curve LA, that has a linear relationship $LA = 0.5 * L + SKEWL$ to parameters (curves) L and SKEWL.

How to change curves L and SKEWL to get a “nicer” LA curve with larger radius?

