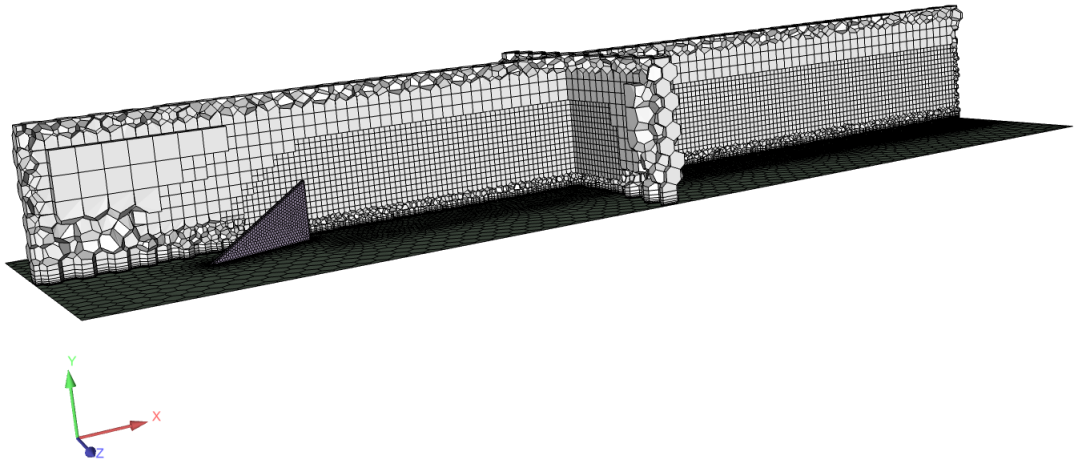
Problem definition

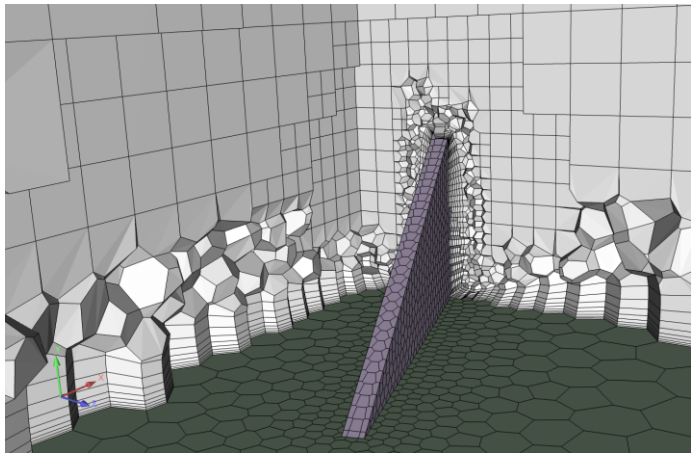
Vortex generator – Tip vortex

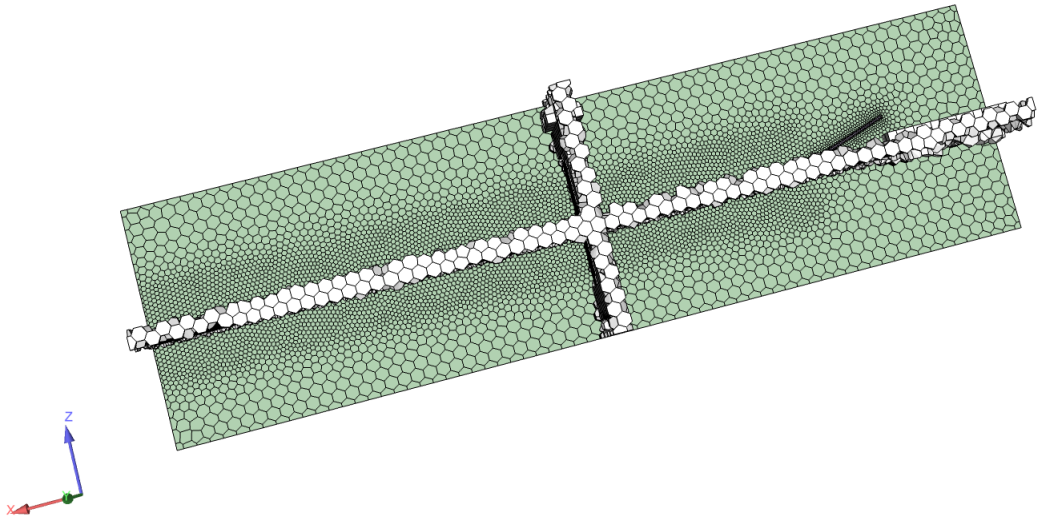
- This is a demonstration case (therefore, there is no validation data).
- We will use this case to study the effect of the curvature correction on tip vortices.
- We will simulate the vortex created by a vortex generator.

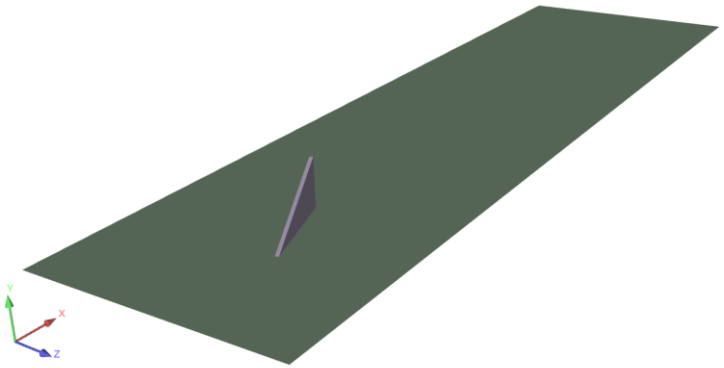
Problem definition

Geometry and mesh







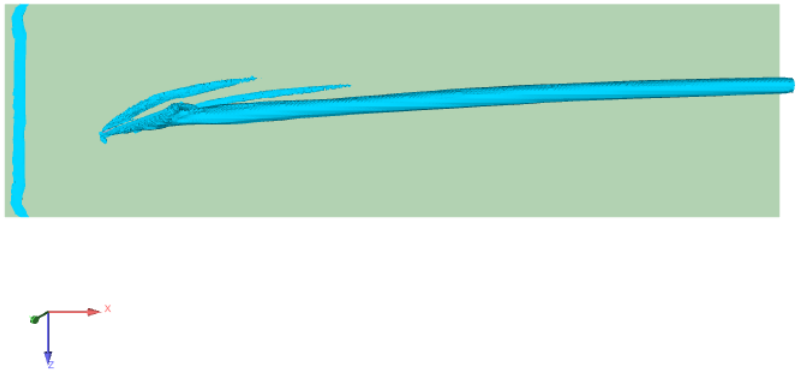


- This is a wall modeling mesh.

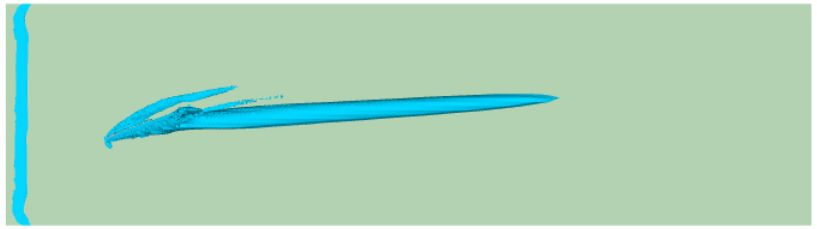
Qualitative and quantitative results

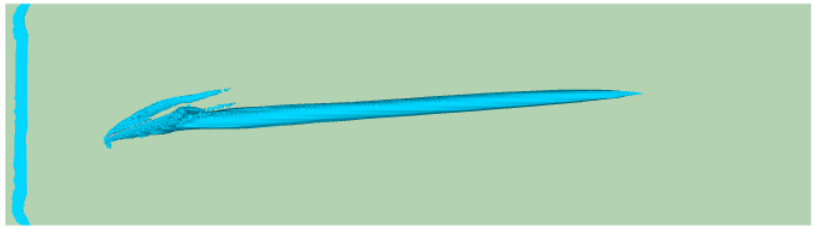
Vortex generator – Tip vortex

RSM

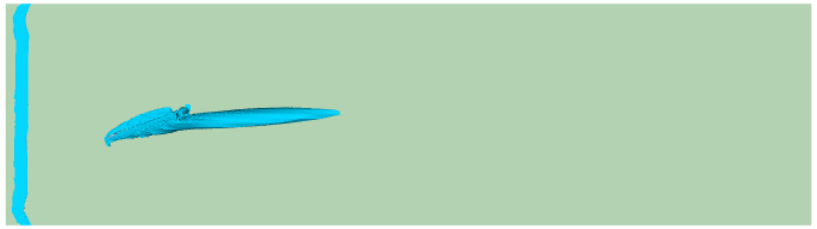


SA NO-CC





KO NO-CC

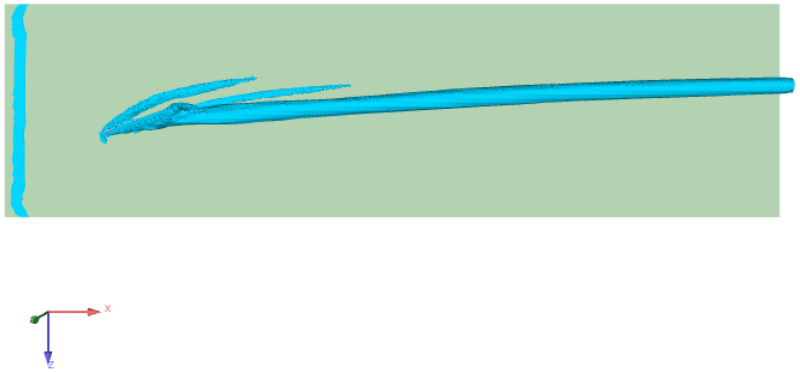


KE (Realizable) NO-CC

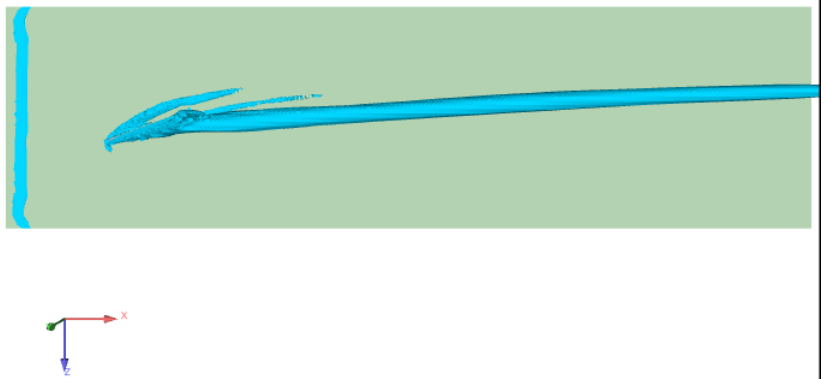
Qualitative and quantitative results

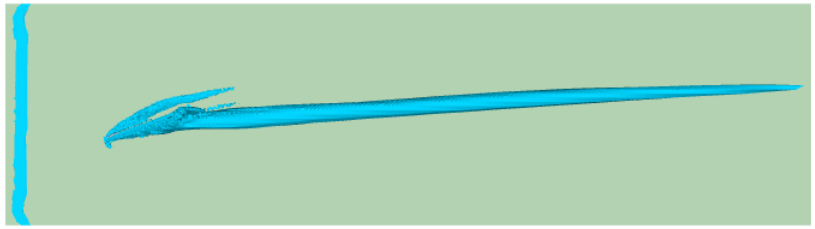
Vortex generator – Tip vortex

RSM



SA CC



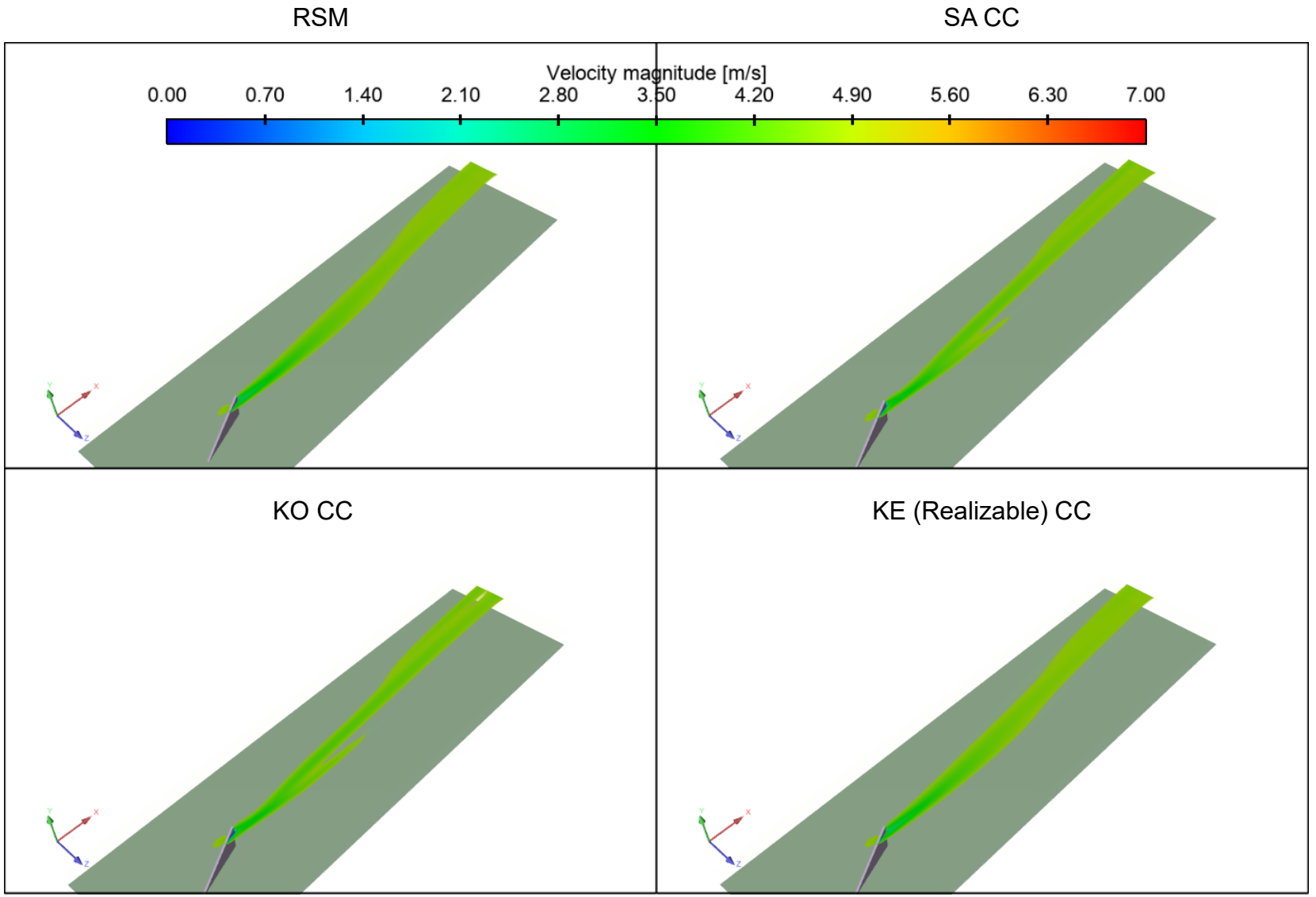


KO CC

KE (Realizable) CC

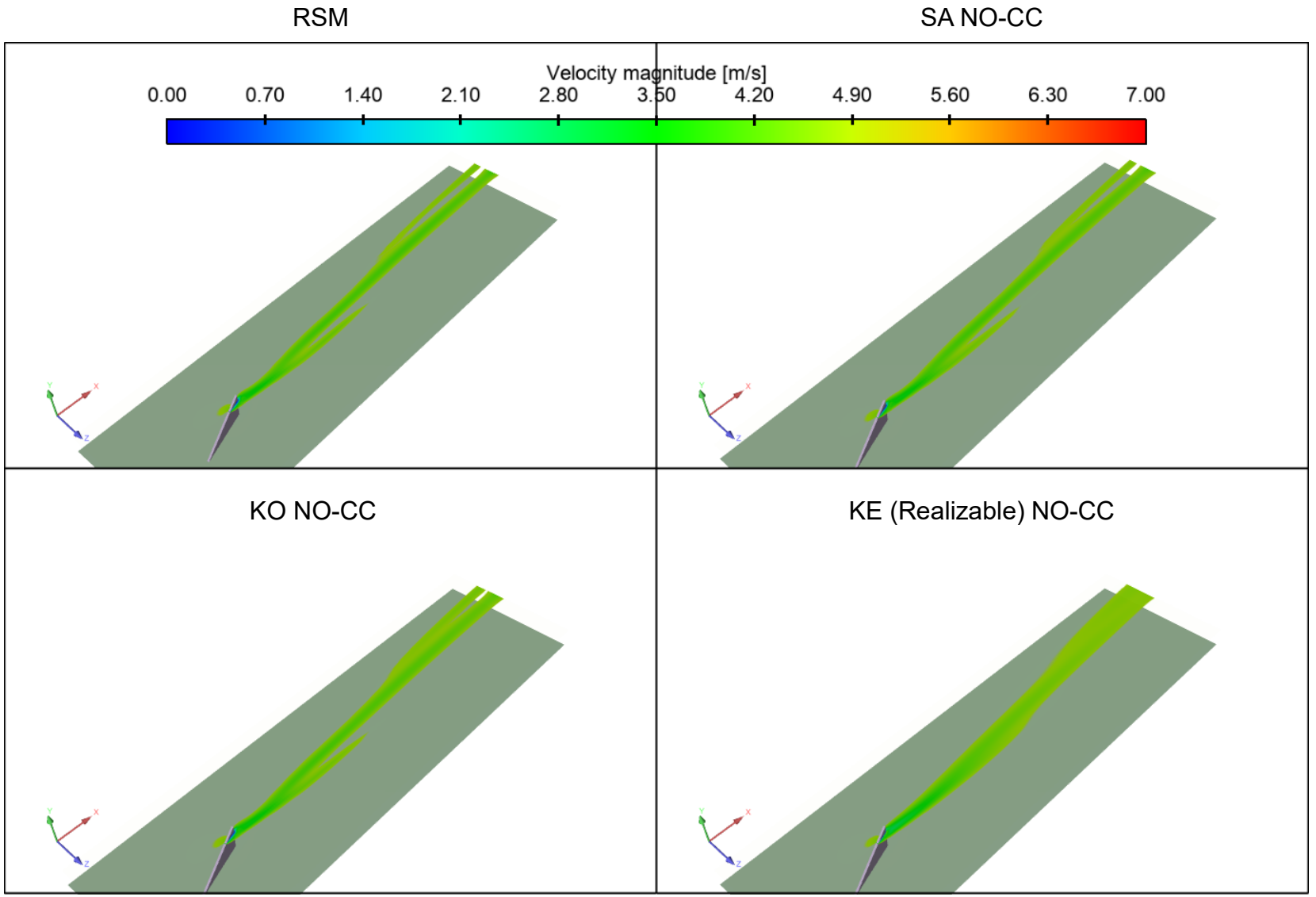
Qualitative and quantitative results

Vortex generator – Tip vortex



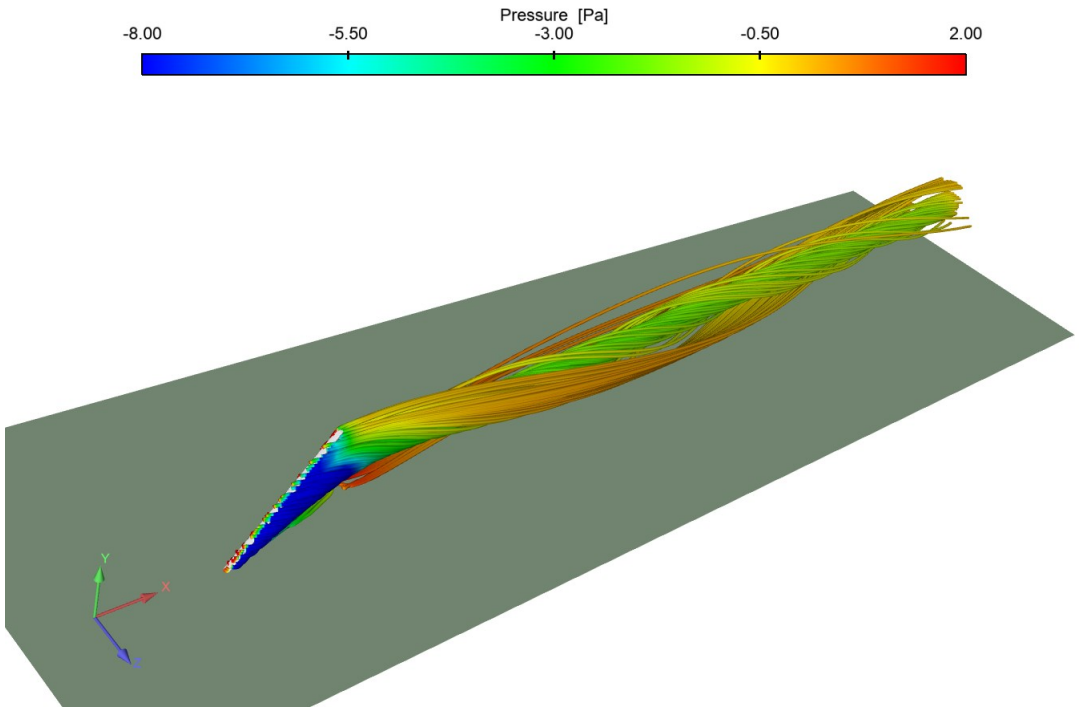
Qualitative and quantitative results

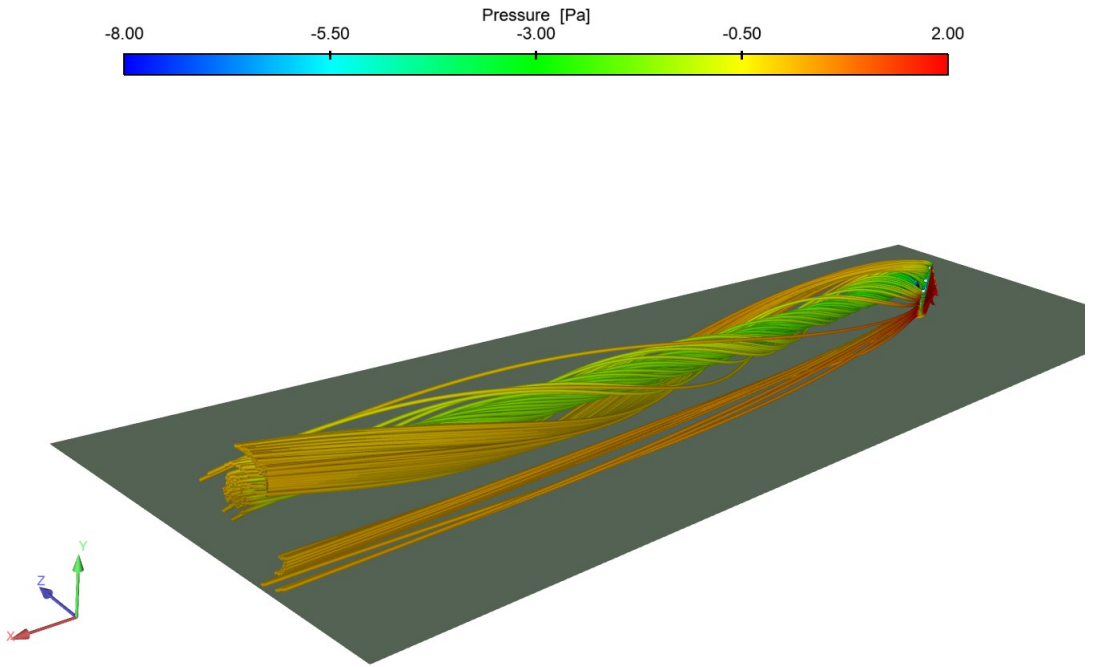
Vortex generator – Tip vortex



Qualitative and quantitative results

Vortex generator – Tip vortex





Streamlines released from the vane – Colored using pressure field