



Dynamic Fluid Structure Interaction of Racing Sail Boats

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10. September 2024



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$$(EIv'')'' = q - \rho A \ddot{v} \int_a^b \epsilon \Theta^{\sqrt{17}} + \Omega \int \delta e^{i\pi} = \{2.7182818284\}$$

∞ χ^2 Σ $!$ $>$ δ ϵ Θ Ω $\int$ $\int_a^b$ Δ



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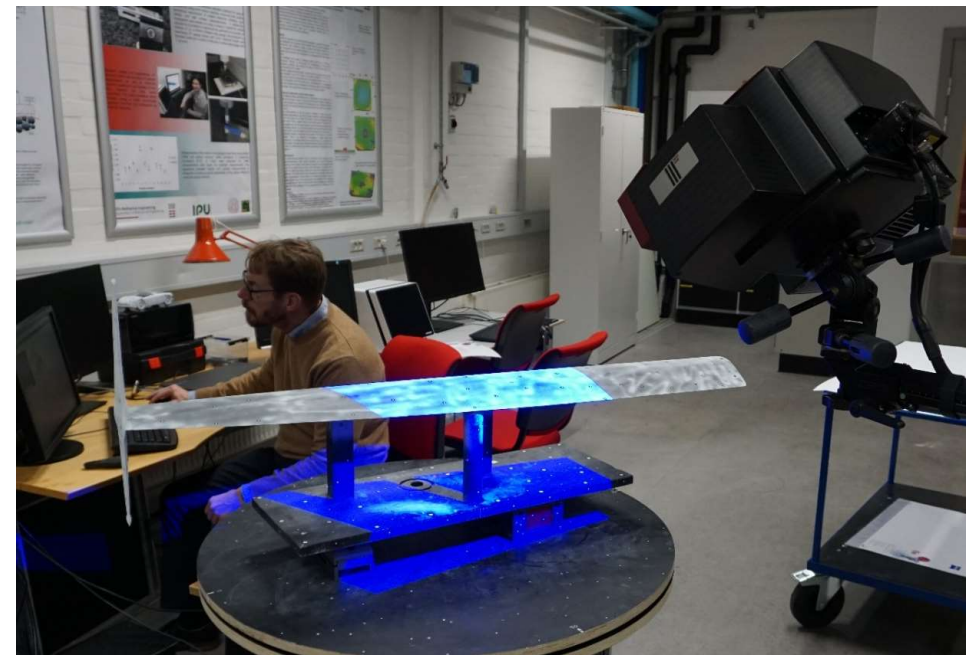
The flying sailboats



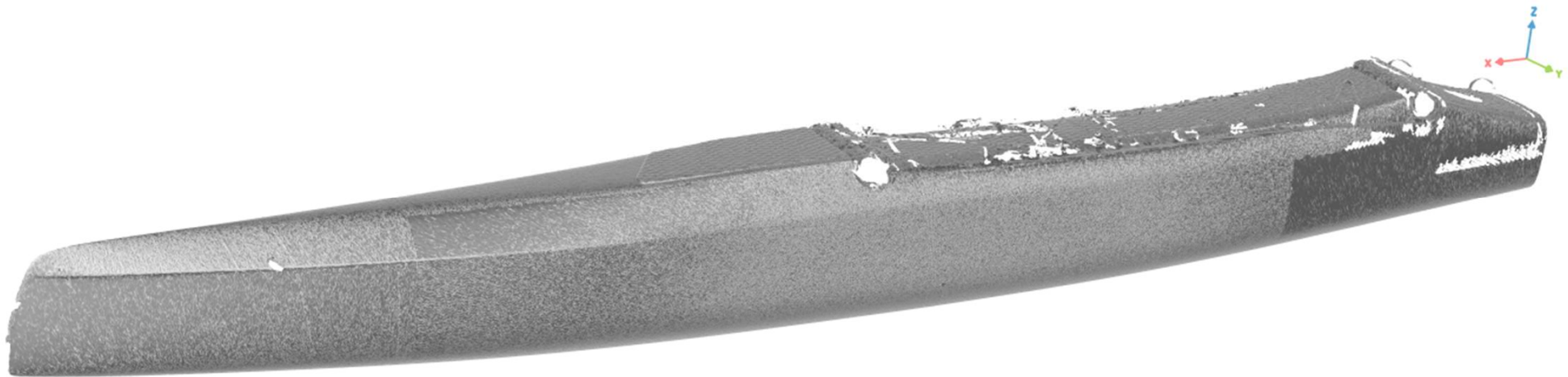
Avancered Sailboat simulator



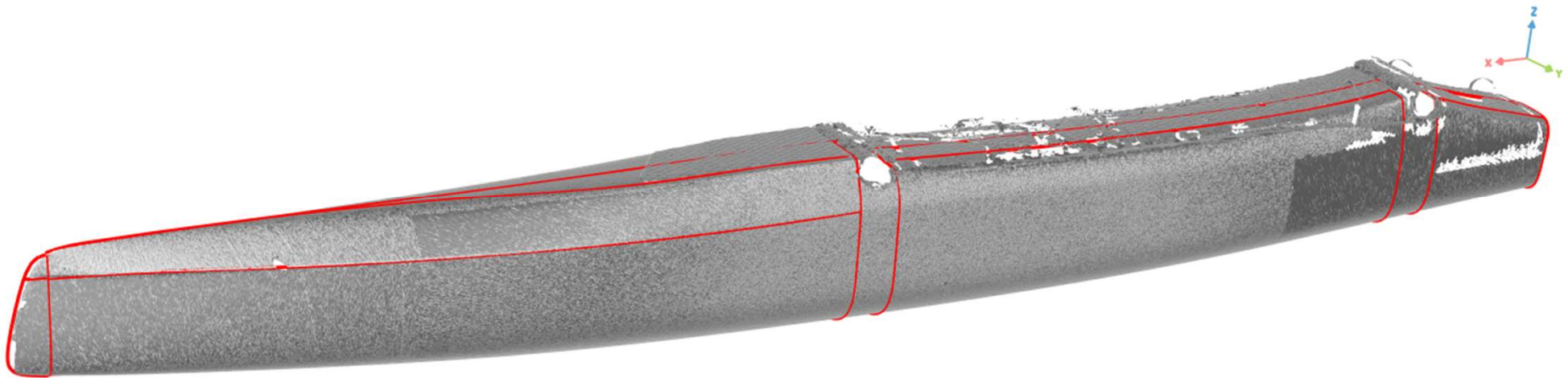
Reverse engineering



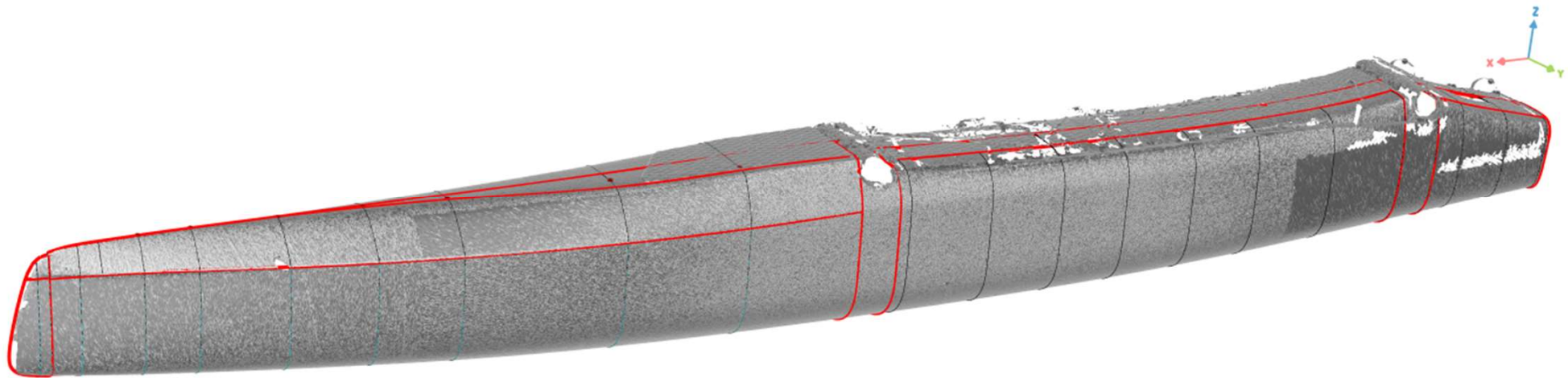
Reverse engineering - Hull



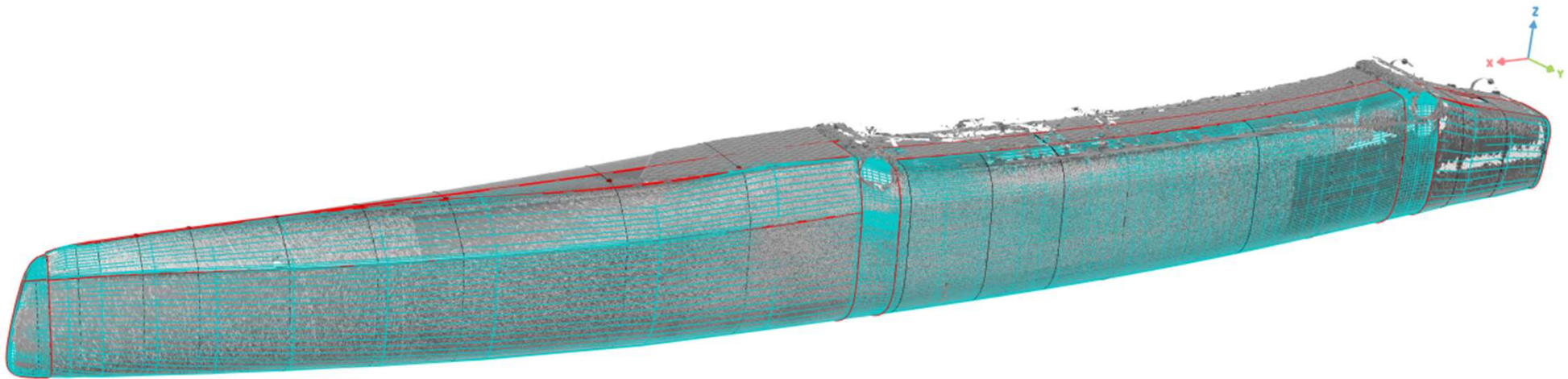
Reverse engineering - Hull



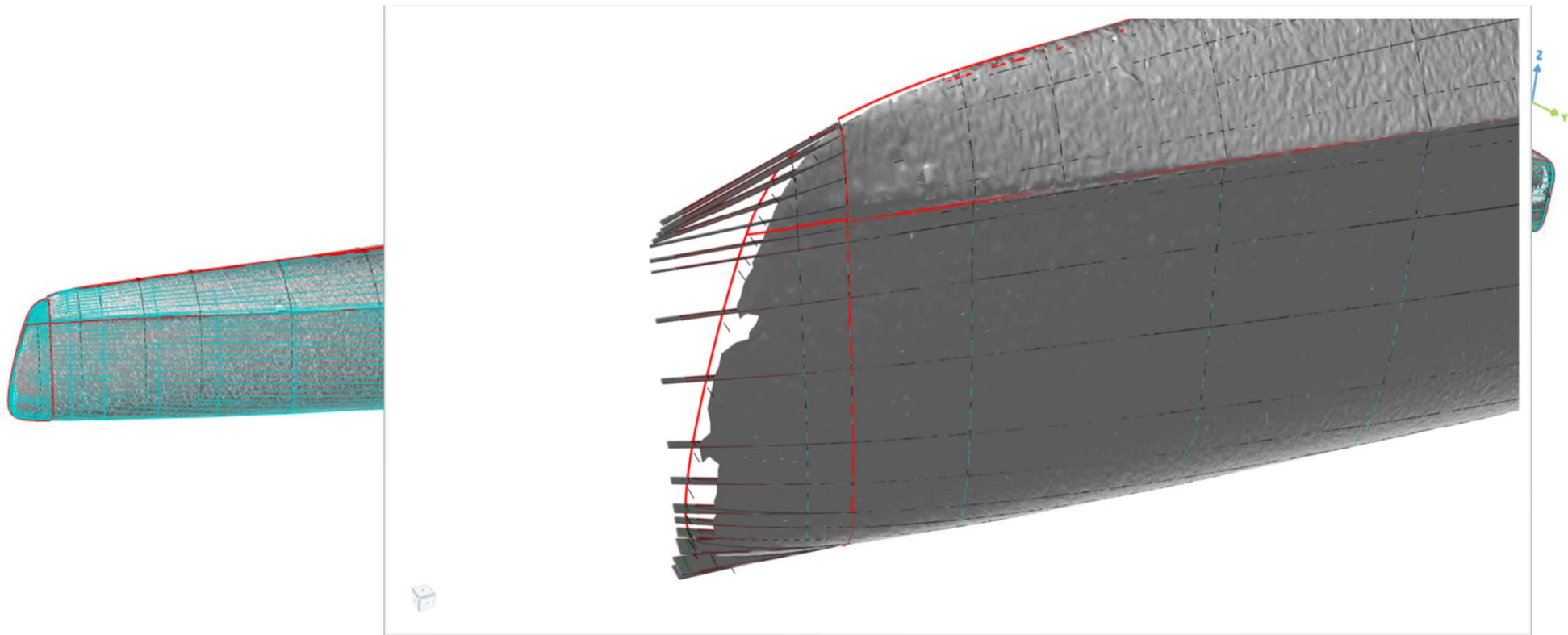
Reverse engineering - Hull



Reverse engineering - Hull



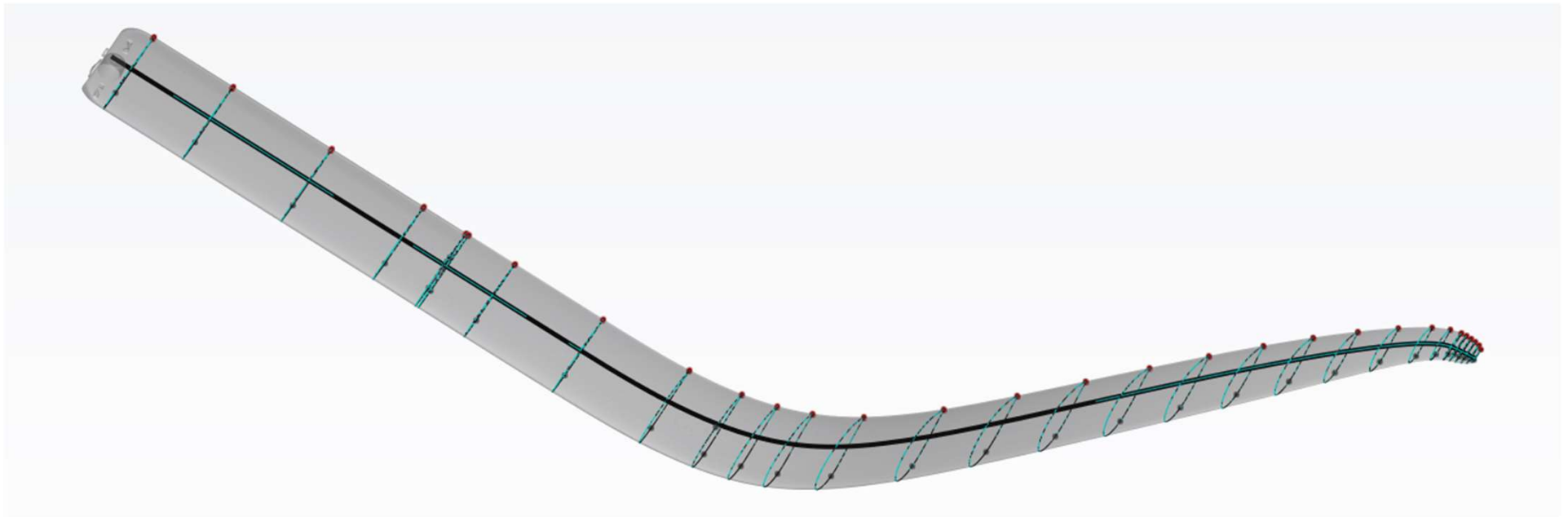
Reverse engineering - Hull



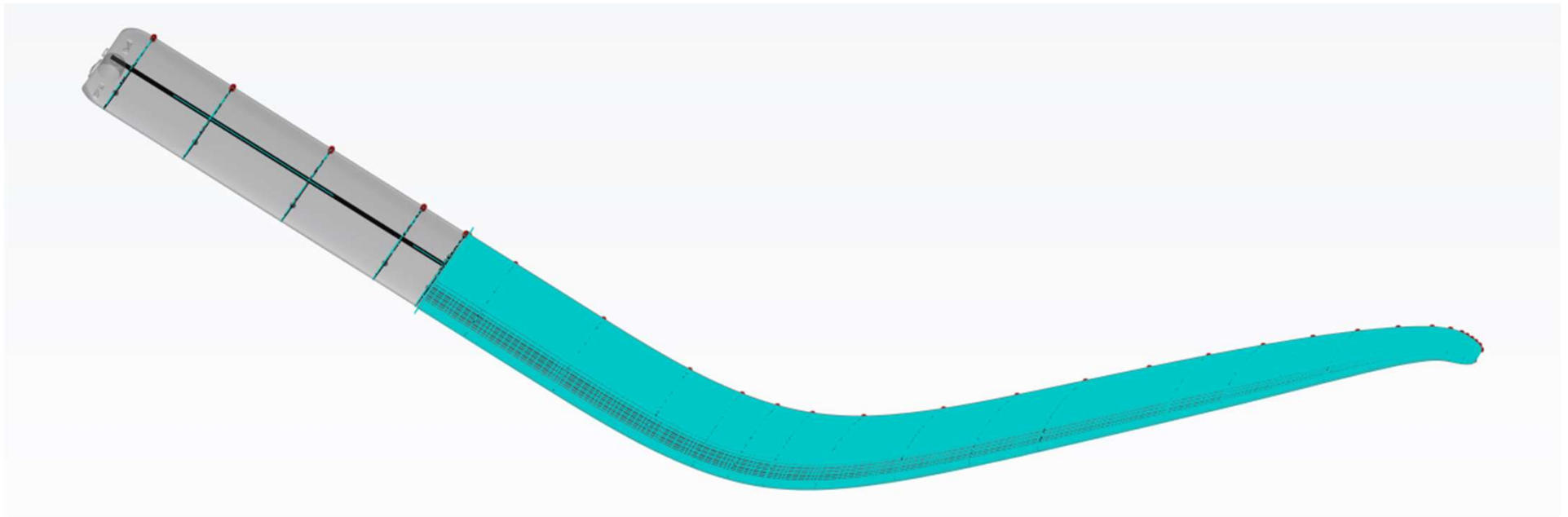
Reverse engineering –Foil



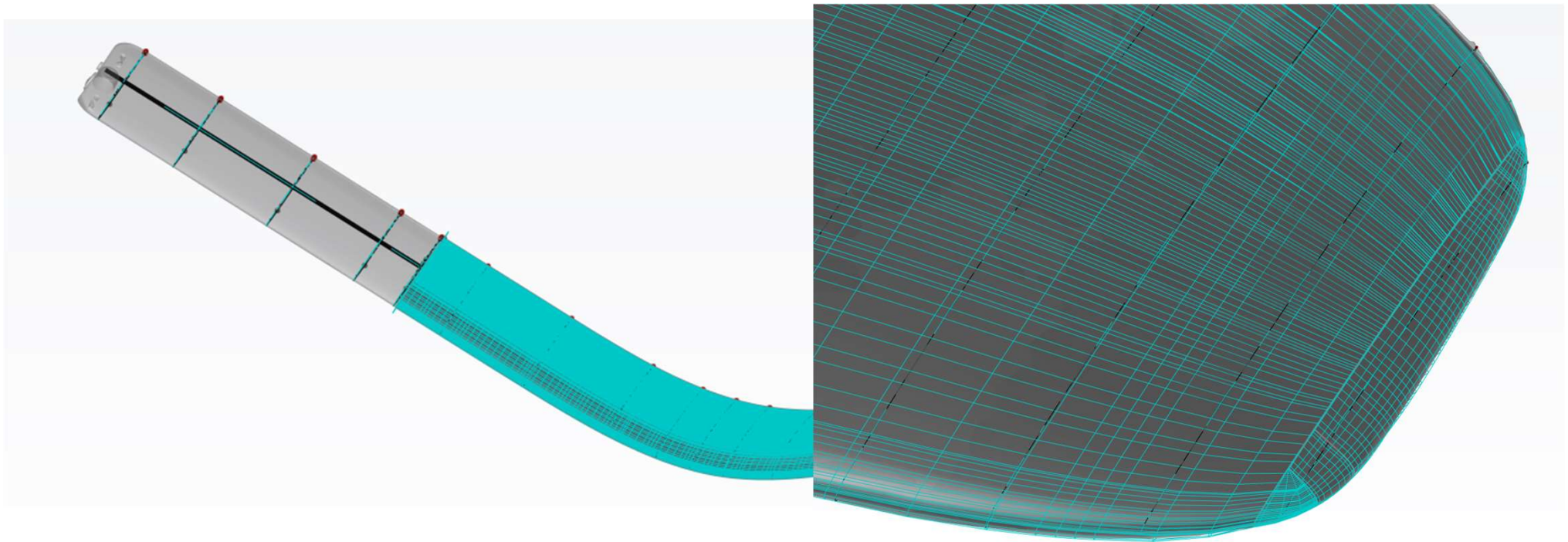
Reverse engineering –Foil



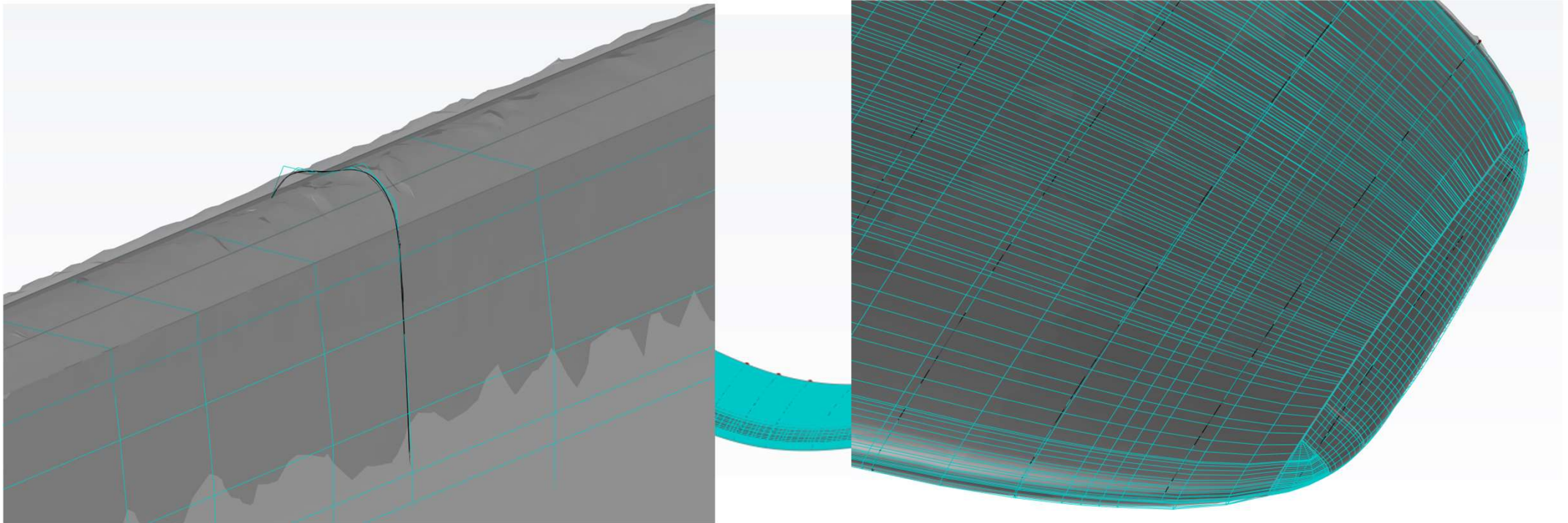
Reverse engineering –Foil



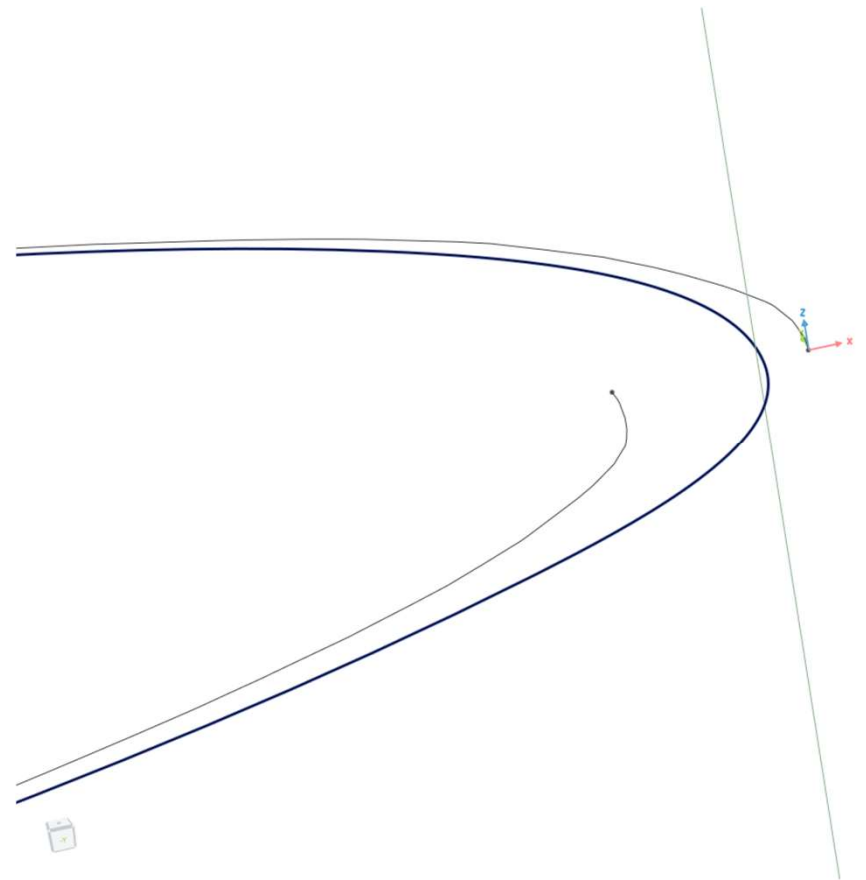
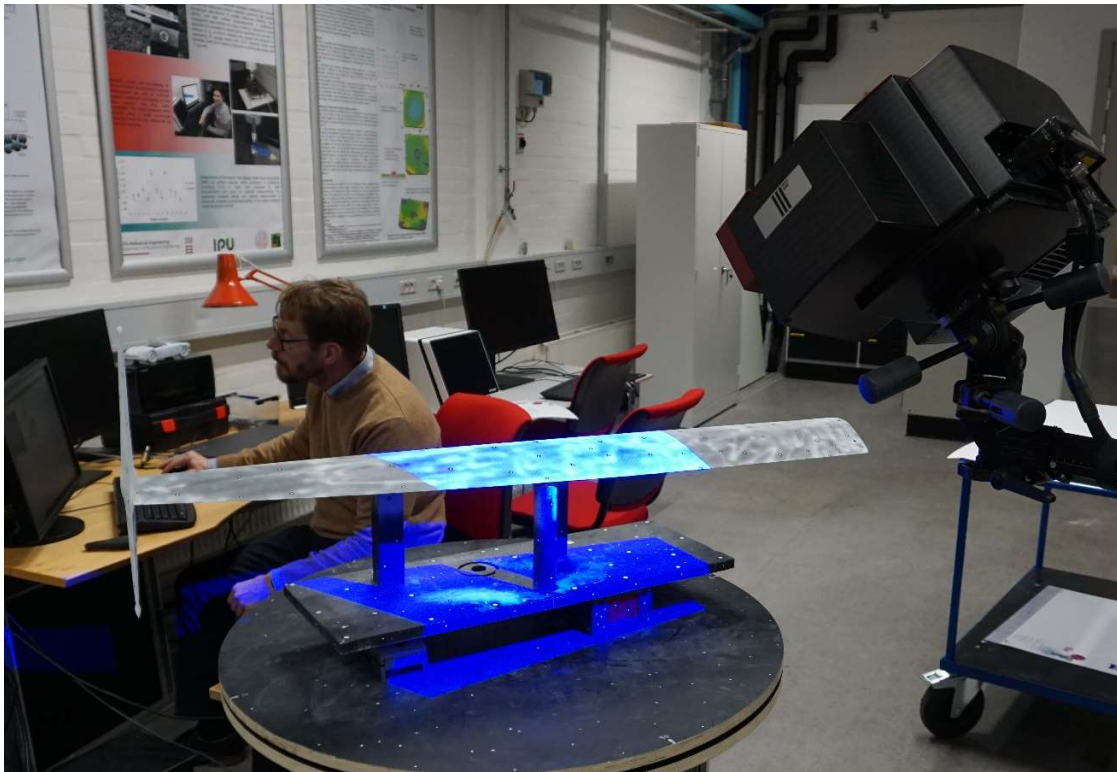
Reverse engineering –Foil



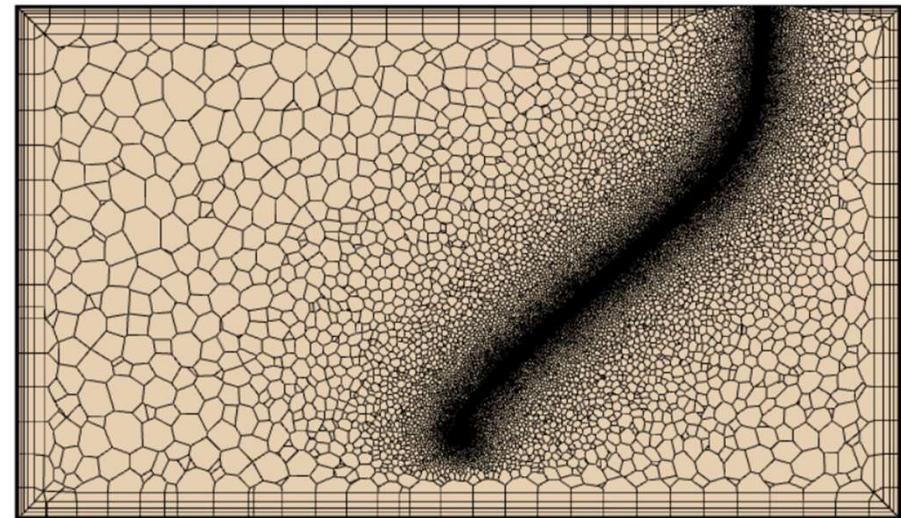
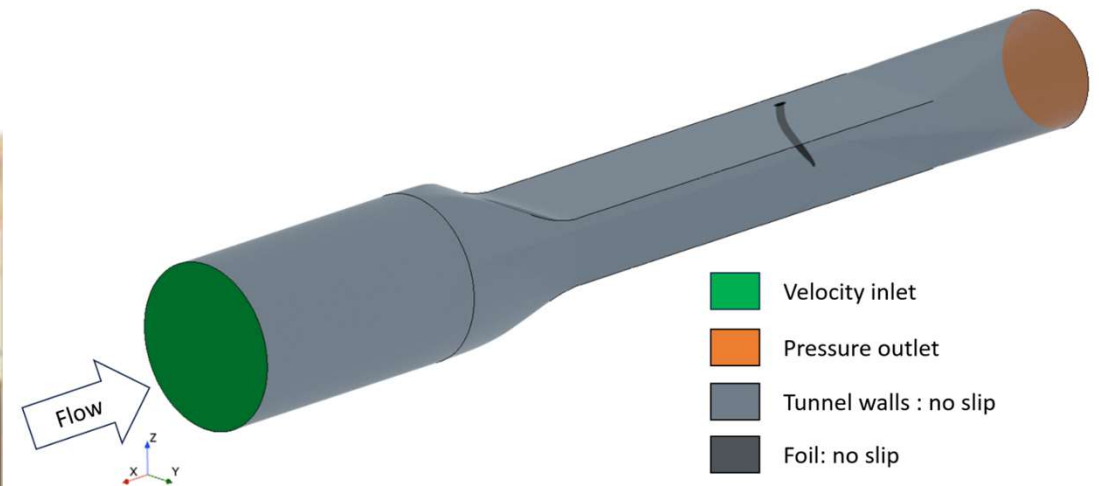
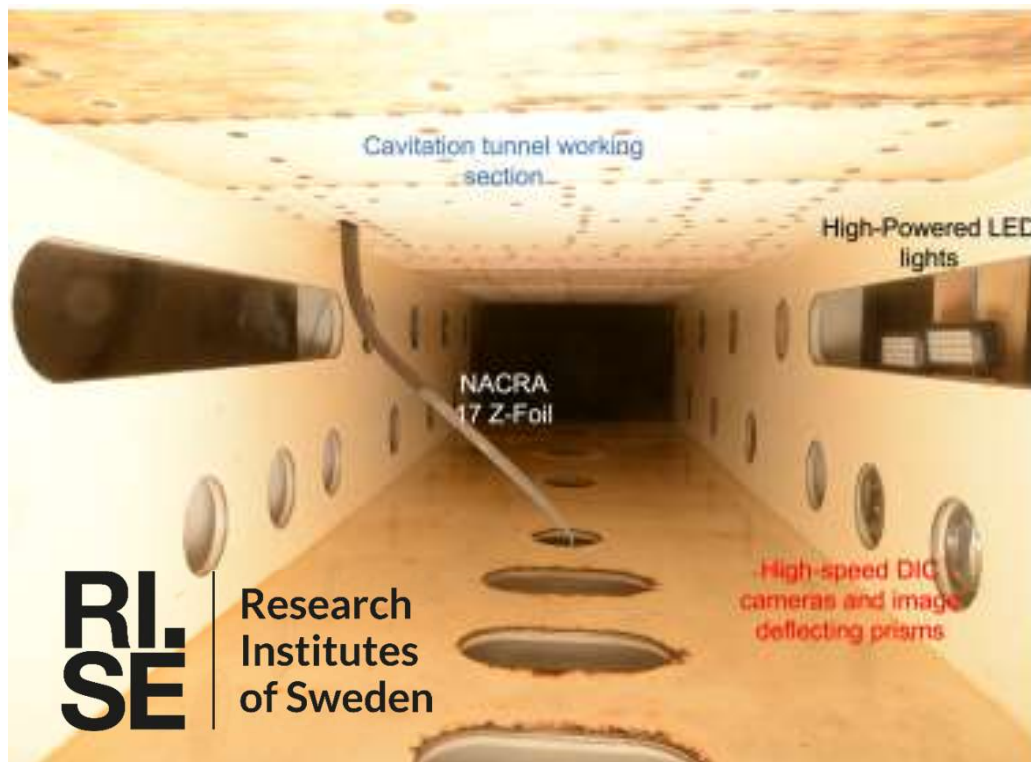
Reverse engineering –Foil



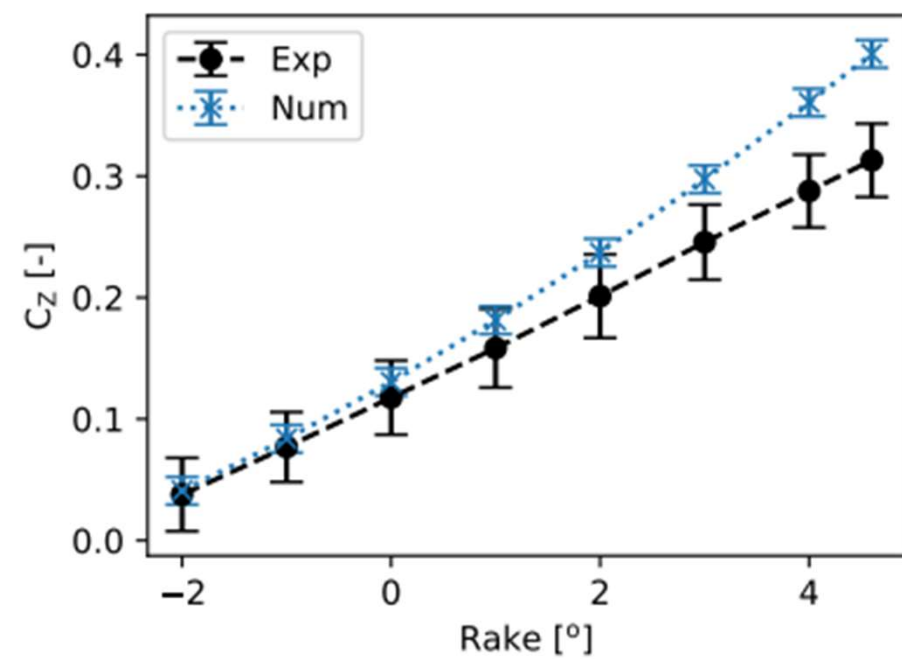
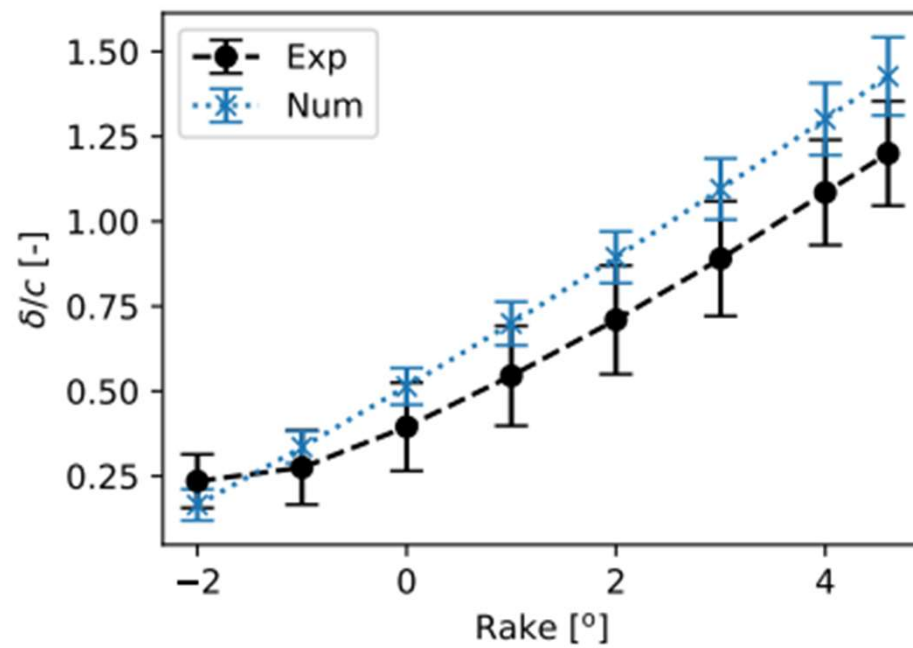
Reverse engineering – Rudder and elevator



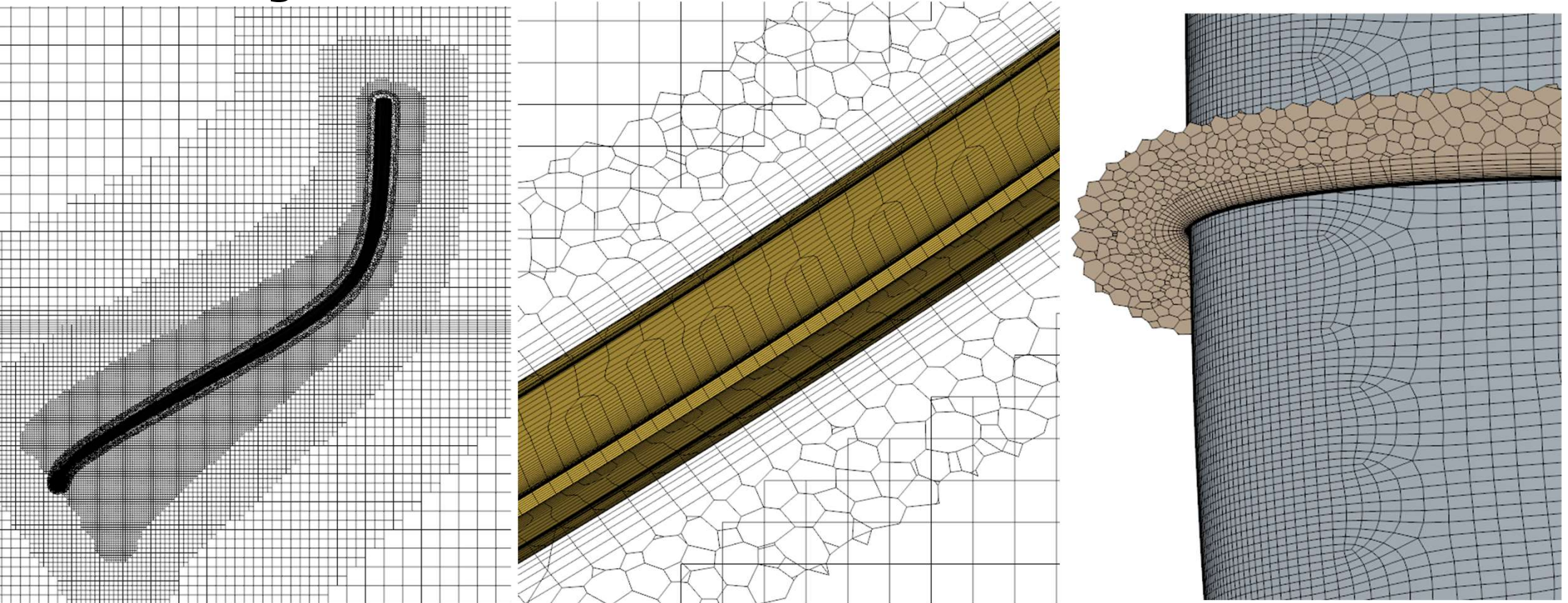
Foil FSI validation



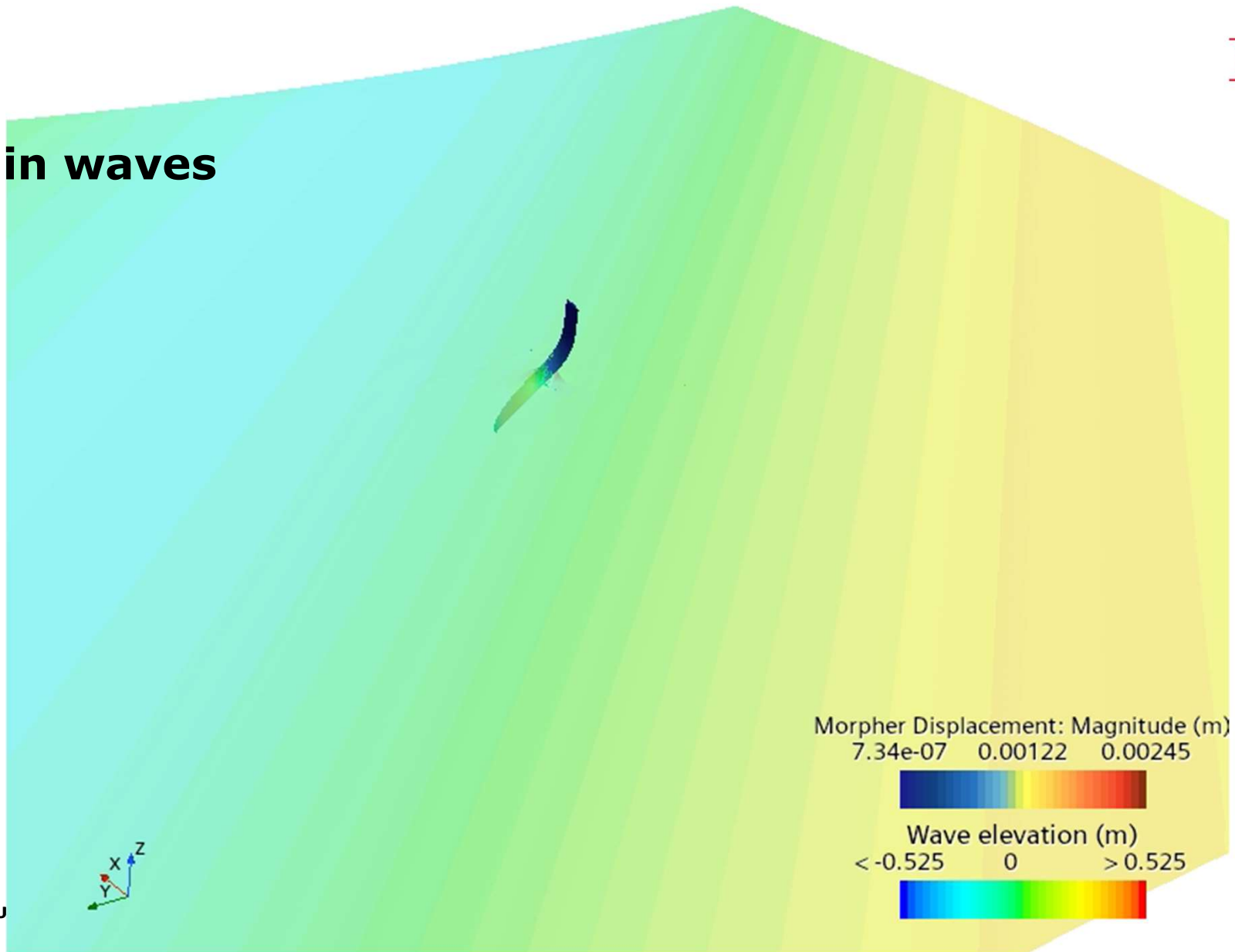
Foil validation results



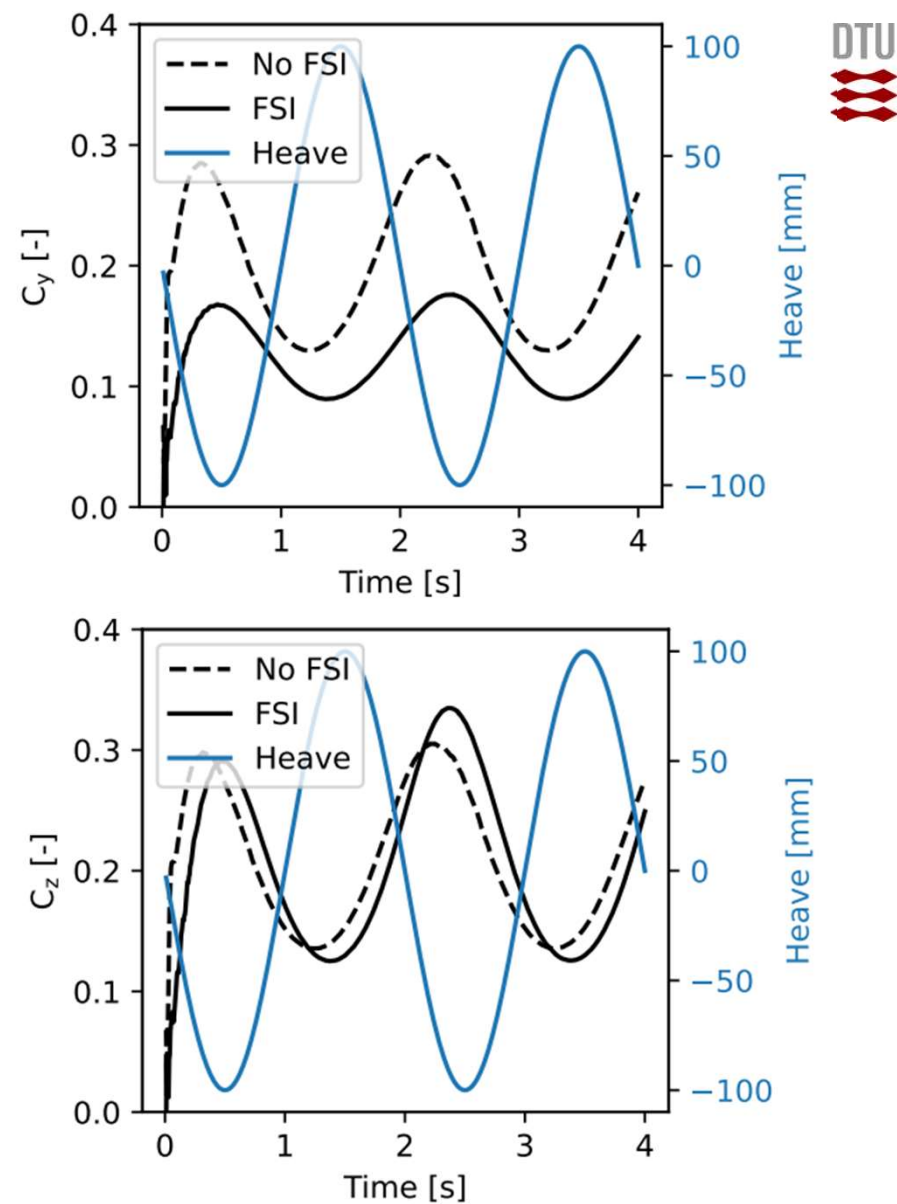
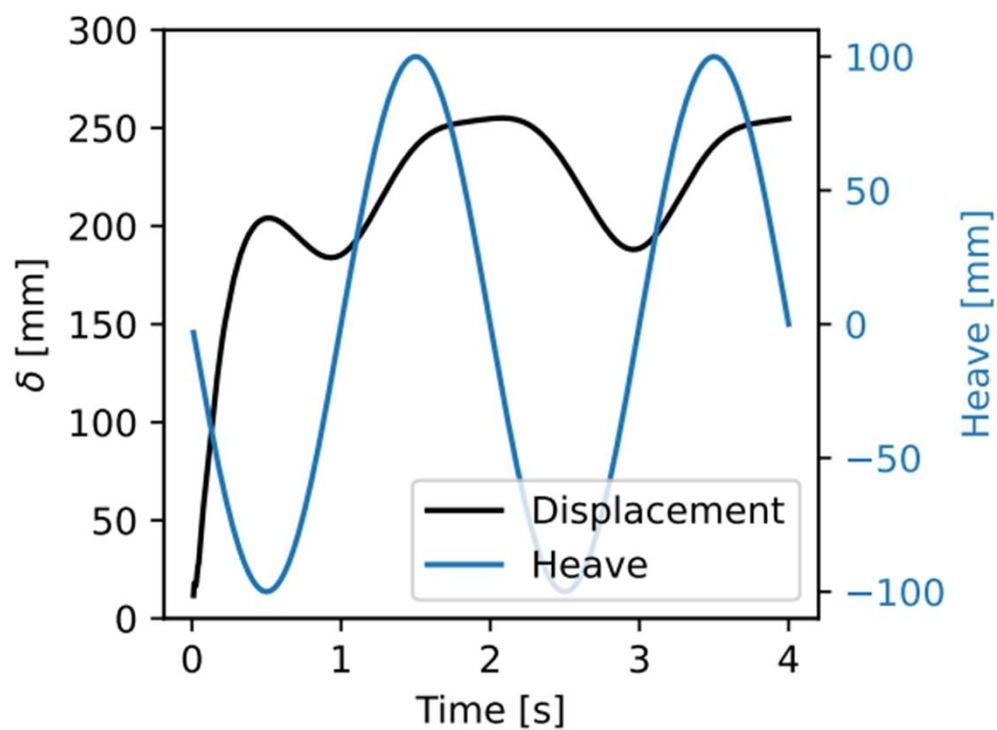
Meshing



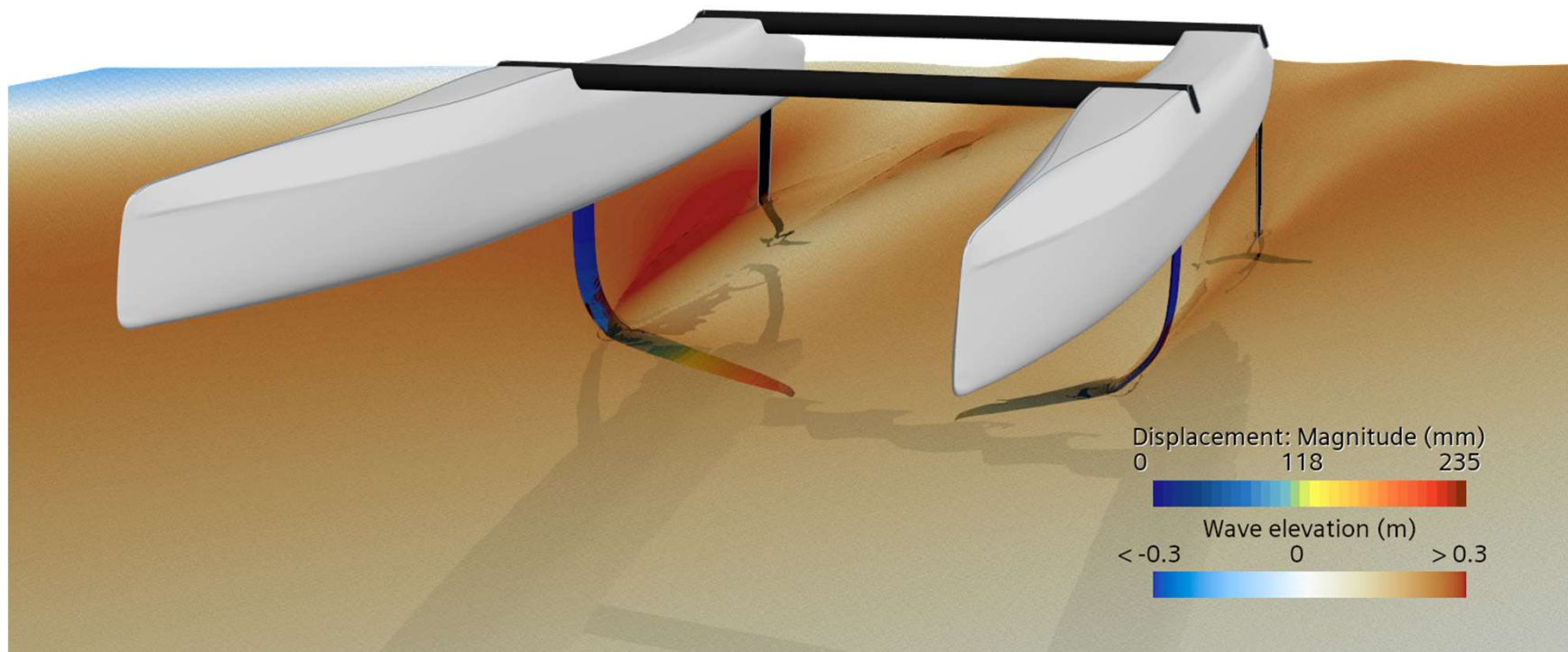
Foil in waves



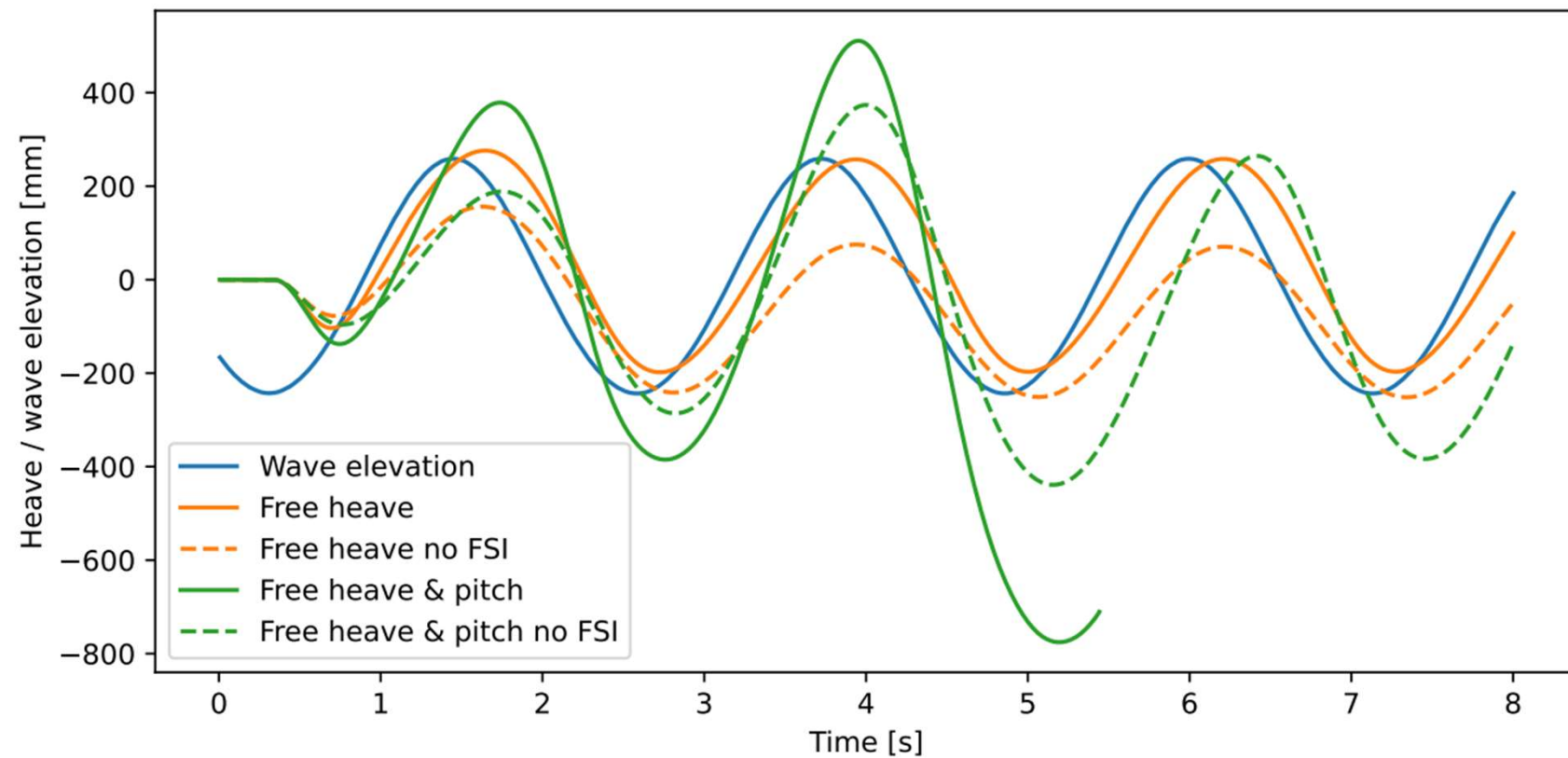
Foil in wave results



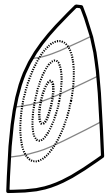
Both foils and rudders



Boat motion in waves



Thanks for you attention



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