



POLITECNICO
MILANO 1863

ASR
DIPARTIMENTO DI
SCIENZE E TECNOLOGIE
AEROSPAZIALI



POLI-Wind

TWEET-IE Grand Opening Event

Prof. Alessandro Croce
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Politecnico di Milano

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Update on status and planning for TWTs: TWT on micro devices

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Timeline

- Spring 2025: tests
- Autumn 2024: wind tunnel booking
- Summer 2024: floor/model interface definition

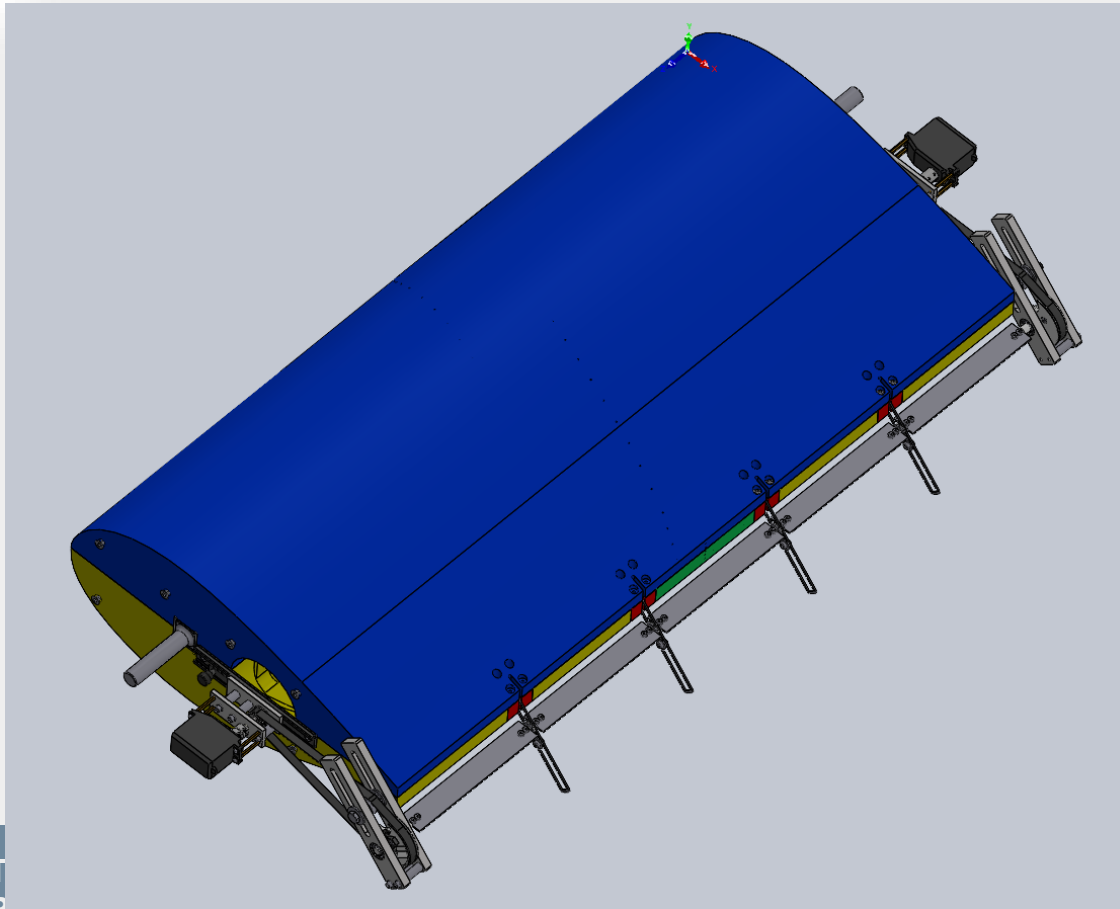
Description

- Existing wing from NTUA will be used
- Chord: 500mm, Span: 1000mm, thickness: 43%, Flatback profile: FB-4286-0802
- The wing is currently supported on 20mm diameter shafts.
- The model currently has pressure taps connected to pressure tubes. The plan is to install transient pressure transducers by then.
- The actuators shown are not operational at the moment. They are nice to have and can be accommodated in a dummy floor if needed.
- 1 week test in the aeronautical test section
- The focus in Milano will be on wake measurements with 2x hot wires on a traverse. Max velocity 55m/s -> $Re = 1.8M$.

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NTUA wind model

- Chord: 500mm, Span: 1000mm, thickness: 43%, Flatback profile: FB-4286-0802



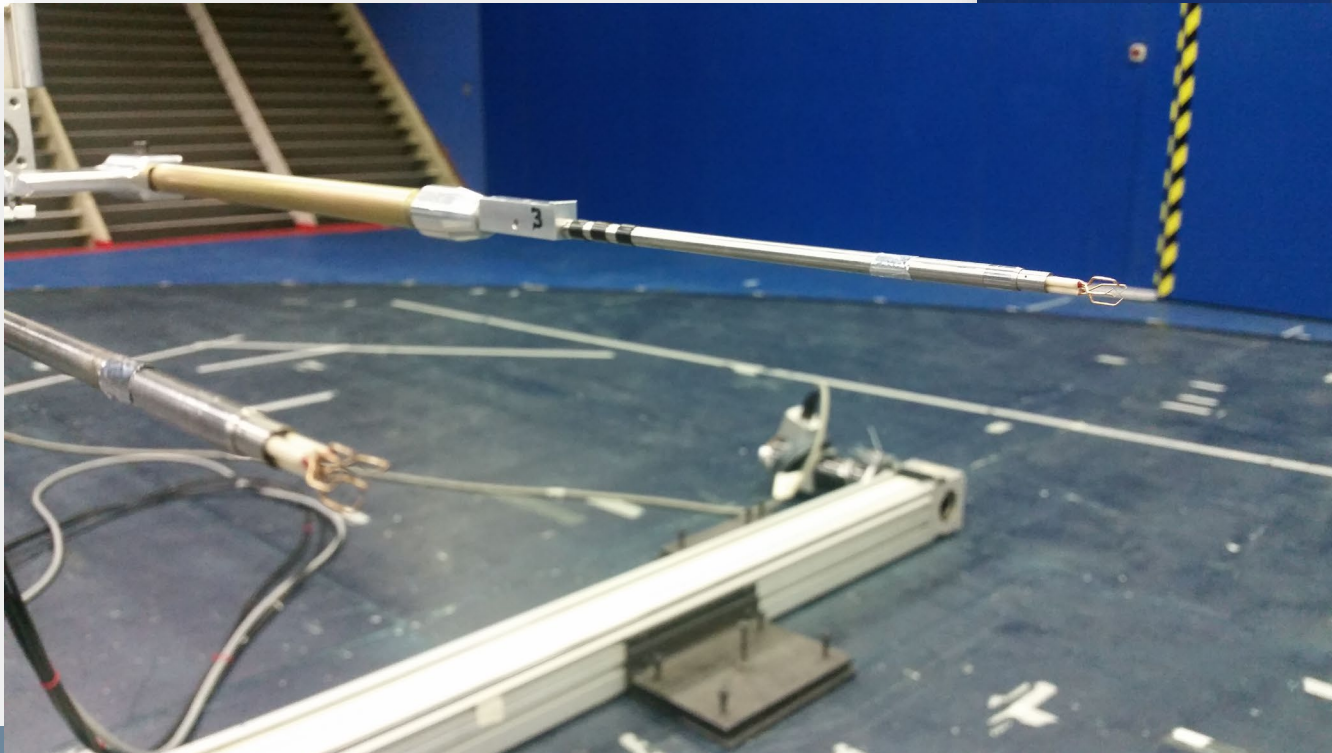
PoliMI aeronautical test section

- 4m wide x 3.84m high x 6m long Low Turbulence (0.1%) Test Section, max wind speed 55m/s
- 2.5m diameter turntable and a traversing system behind the model's location, suitable for wake measurements

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Wake measurements:

- Hot wire probes on traversing system



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