



Poster online
version



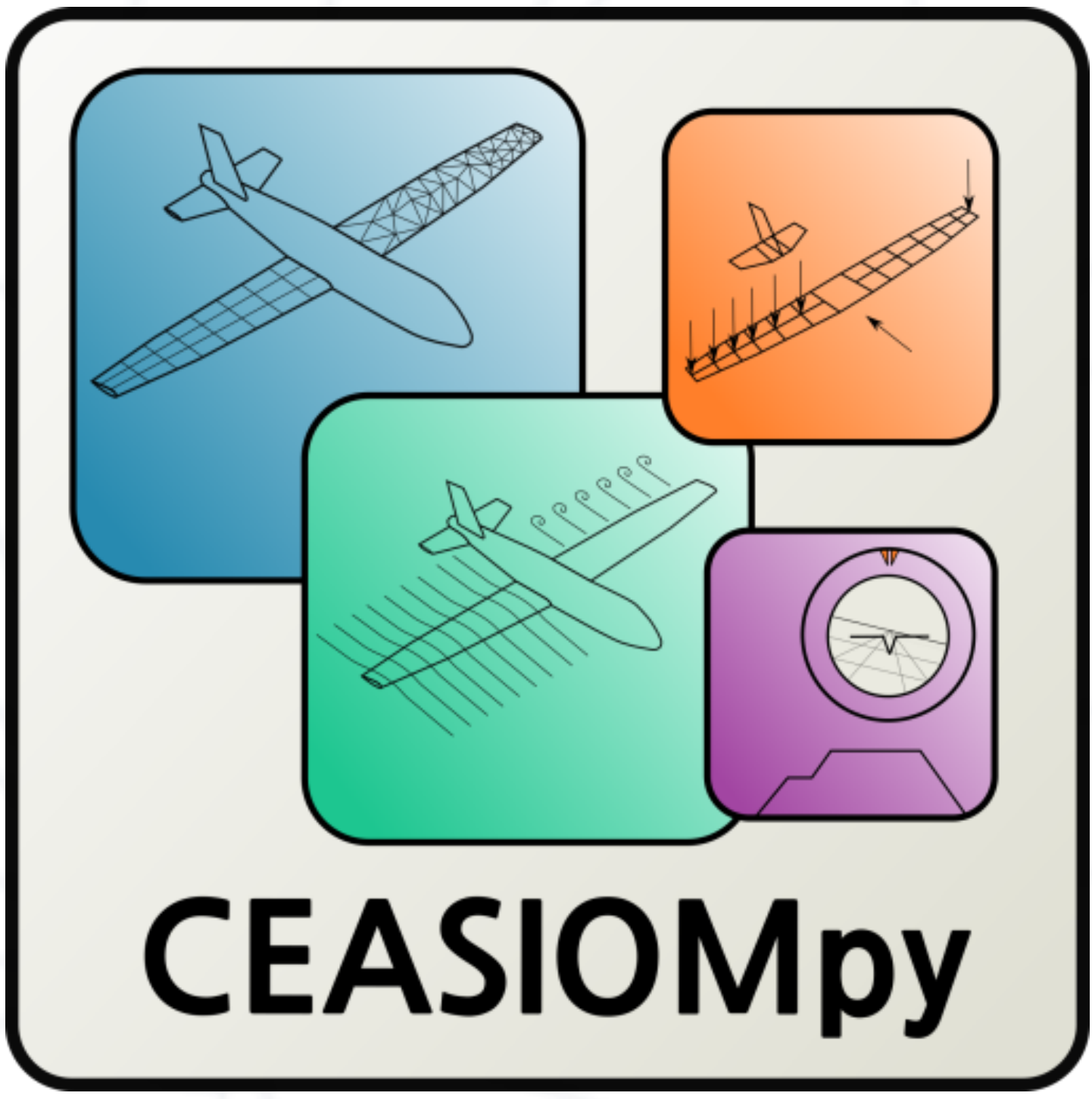


CEASIOMpy
repository

CEASIOMpy: learning aircraft design by computing

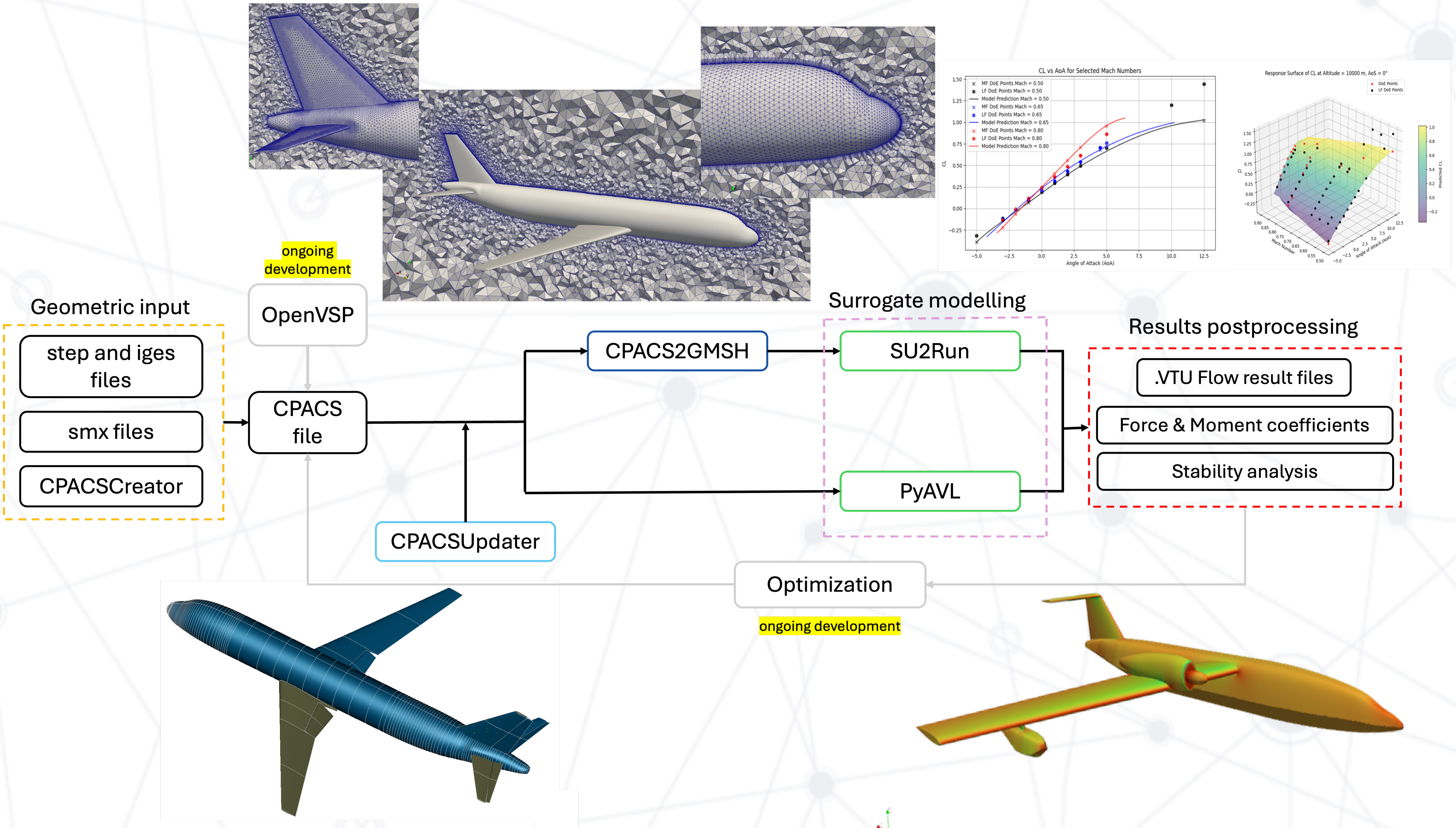
Giacomo Benedetti¹, Léon Deligny¹, Mengmeng Zhang², Jan B. Vos¹, Jesper Oppelstrup³ Arthur Rizzi³

¹CFS Engineering, ²Airinnova, ³KTH Royal Institute of Technology



- **CEASIOMpy**: Open-source Python platform for conceptual aircraft design
- Integrates existing tools for aerodynamics, structures, propulsion, and systems
- **Modular**: combine different tools for custom workflows
- Supports both **research** and **education** via “learning by computing”

What you can find in CEASIOMpy?



What’s new in CEASIOMpy?

- **Docker support**: run on any platform
- **User-friendly**: "click one button" logic to execute workflows easily
- **CPACS2GMSH mesh**: automatic Euler and RANS mesh generation for the full and half aircraft configuration
- **CPACSupdater**: auto-create & deflect control surfaces
- **Stability & control**: static/dynamic stability analysis
- **Surrogate modeling**: accurate & low-cost simulations thanks to mixed-fidelity approach



CEASIOMpy is a flexible, modular platform for conceptual aircraft design, supporting aerodynamics, stability, geometry, and surrogate modeling. Ongoing development and new modules, like **shape optimization** and **OpenVSP integration**, enable faster iterations and broader design possibilities.

