

Long Presentation Title

André C. Marta

MDO Laboratory, Center for Aerospace Science and Technology, IDMEC
Instituto Superior Técnico, Universidade de Lisboa
Lisbon, Portugal

<https://mdo.tecnico.ulisboa.pt/>

AeroBest 2023 - 2nd ECCOMAS Thematic Conference on MDO of Aerospace Systems
Lisbon, 19–21 July 2023



- 1 Introduction
- 2 Background
- 3 Implementation
- 4 Results
- 5 Conclusions
- 6 Future Work

- 1 Introduction
- 2 Background
- 3 Implementation
- 4 Results
- 5 Conclusions
- 6 Future Work

- List current scenarios
- State market / society demand
- Identify opportunities



Engineering approach

State proposed solution

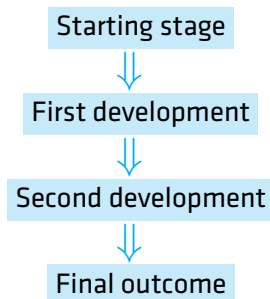
Objectives

- List main objectives
- Include expected deliverables
- Present flowchart if applicable



Objectives

- List main objectives
- Include expected deliverables
- Present flowchart if applicable



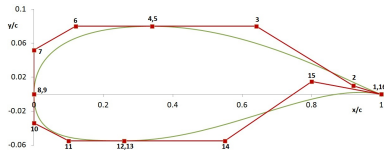
- 1 Introduction
- 2 Background
- 3 Implementation
- 4 Results
- 5 Conclusions
- 6 Future Work

Some theoretical background

Include some equations

$$B(t) = (1 - t)[(1 - t)P_0 + tP_1] + t[(1 - t)P_1 + tP_2], t[0, 1]$$

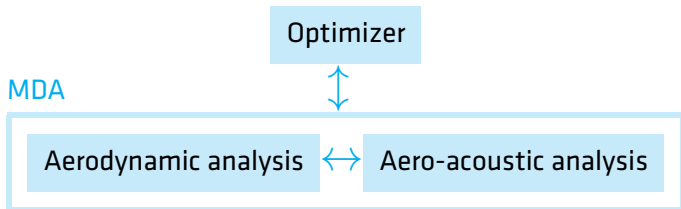
but mostly figures to illustrate concepts



do not forget to include relevant references¹

¹A. C. Marta and A. Suleman, editors. *Proceedings of the AeroBest 2021 - International Conference on Multidisciplinary Design Optimization of Aerospace Systems*, ECCOMAS Thematic Conference, Lisboa, Portugal, July 2021. IDMEC. ISBN:978-989-99424-8-6

- 1 Introduction
- 2 Background
- 3 Implementation**
- 4 Results
- 5 Conclusions
- 6 Future Work



$$\begin{aligned}
 &\text{minimize} && f(\alpha, \omega(\alpha)) \\
 &\text{w.r.t.} && \alpha \\
 &\text{subject to} && \mathbf{c}_i(\alpha, \omega(\alpha)) \leq 0 \\
 & && \mathbf{c}(\alpha, \omega(\alpha)) = 0
 \end{aligned}$$

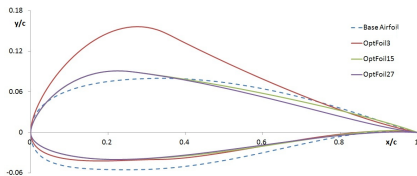
- 1 Introduction
- 2 Background
- 3 Implementation
- 4 Results**
- 5 Conclusions
- 6 Future Work

Table: Properties

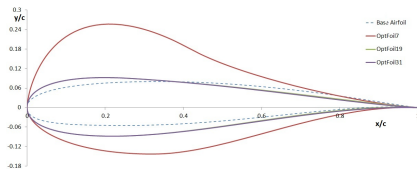
Airfoil	FFA-W ₃ -211	N4412	N63415
r/R	0.10	0.65	0.90
c [m]	3.6	1.4	0.8
L [m]	7.2	2.8	1.6
t/c	0.21	0.12	0.15

Speed $U = 20 \text{ m/s}$ Distance $r_e = 250 \text{ m}$

First data set



Second data set



Enumerate take-aways

- Focus on major results
- Highlight cause-effects found

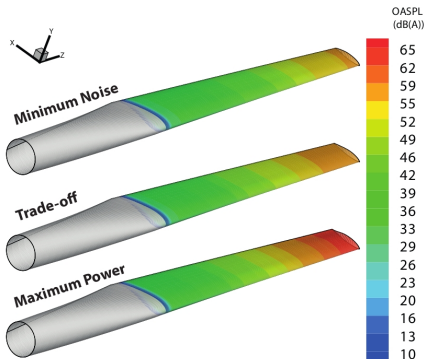
- 1 Introduction
- 2 Background
- 3 Implementation
- 4 Results
- 5 Conclusions**
- 6 Future Work

Major outcomes

- First finding
- Second finding
- Last finding

- 1 Introduction
- 2 Background
- 3 Implementation
- 4 Results
- 5 Conclusions
- 6 Future Work**

- First work item
- Second work item





Thank you!

