



**UNIMORE**  
UNIVERSITÀ DEGLI STUDI DI  
MODENA E REGGIO EMILIA



# Design of a Rear Wing DRS System by means of a deformable wing profile

Academic Year 2024-2025

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## **Abstract**

This treatise describes the design and development of an active rear wing system for racing applications. The solution leverages aerospace-inspired technology to create a deformable composite wing that adjusts its position by electrical actuation, improving aerodynamic performance. The design process follows systematic approach, including the evaluation of deformation mechanisms, structural reinforcements, and aerodynamic performances. The final design meets technical, regulatory, and performance requirements, offering a new and efficient solution for motorsport teams, particularly for WEC racing, where active aerodynamic devices are not yet adopted.