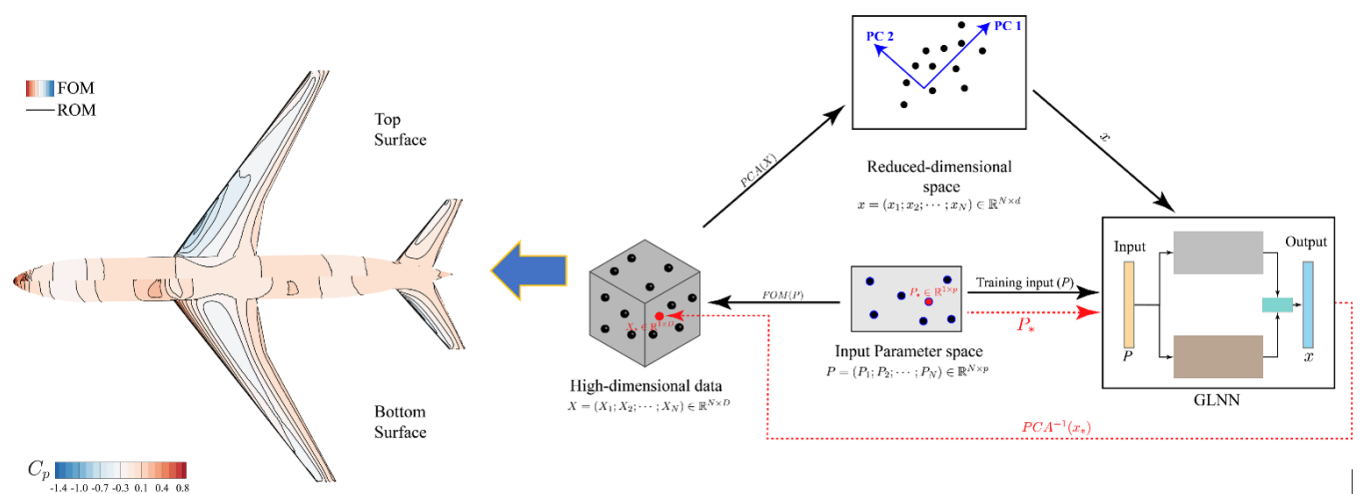


## GREMAN seminar

WEDNESDAY  
**3**  
SEPTEMBER



# Weigang YAO

Université De Monfort (Leicester, UK)



## Data-Driven Simulation and Design Optimization in Aviation and Beyond: AI Paths to Sustainable Systems

1:30pm - 2:30pm (Petit Amphi - INSA CVL - Blois)

Dr Weigang Yao is Associate Professor of Aeronautical Engineering at De Montfort University (UK), where he specialises in fluid–structure interaction (FSI), data-driven simulation, and multidisciplinary design optimisation (MDO). His research focuses on the development of advanced computational tools to support innovation in renewable energy, aeronautics, and sustainable infrastructure. He was awarded the NASA Postdoctoral Program Fellowship, during which he developed high-efficiency FSI algorithms for NASA’s Fundamental Aeronautics Program. Dr Yao has secured approximately £1 million in competitive research funding from EPSRC, NASA, and industry. His research is closely aligned with industrial applications, including collaborations with AIRBUS UK’s Wing of Tomorrow programme and AMST (Austria) on adaptive wing design and flight simulation technologies. Currently, Dr Yao leads an international collaboration with INSA Centre Val de Loire on smart fluid-driven energy harvesting systems. He has authored over 30 peer-reviewed publications in leading journals such as the Journal of Fluid Mechanics and Journal of Fluids and Structures, and has supervised four PhD researchers in the areas of FSI and data-driven optimisation. His work contributes to shaping the next generation of engineering solutions for a more sustainable future.