Research outputs:

**Design optimization of a curved wind turbine blade using neural networks and an aero-elastic vortex method under turbulent inflow**
Research output: Contribution to journal › Journal article – Annual report year: 2020 › Research › peer-review

**Power curve and wake analyses of the Vestas multi-rotor demonstrator**
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

**The wake of an actuator line with a vortex-based tip/smearing correction in uniform and turbulent inflow**
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2019 › Research › peer-review

**Analysis of winglets and sweep on wind turbine blades using a lifting line vortex particle method in complex inflow conditions: Paper**
Research output: Contribution to journal › Conference article – Annual report year: 2018 › Research › peer-review

**Evaluation of different methods for determining the angle of attack on wind turbine blades with CFD results under axial inflow conditions**
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

**Vortex simulations of wind turbines operating in atmospheric conditions using a prescribed velocity-vorticity boundary layer model**
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

**Development of an aeroelastic code based on three-dimensional viscous–inviscid method for wind turbine computations**
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

**Hybrid vortex simulations of wind turbines using a three-dimensional viscous-inviscid panel method**
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

**Simulation of the Flow past a Circular Cylinder Using an Unsteady Panel Method**
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

**Aerodynamic wind-turbine rotor design using surrogate modeling and three-dimensional viscous-inviscid interaction technique**
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review
A refined tip correction based on decambering
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review

Design of Large Wind Turbines using Fluid-Structure Coupling Technique
Research output: Book/Report › Report – Annual report year: 2017 › Research › peer-review

Experimental benchmark and code validation for airfoils equipped with passive vortex generators
Research output: Contribution to journal › Conference article – Annual report year: 2016 › Research › peer-review

Flow Curvature Effects for VAWT: a Review of Virtual Airfoil Transformations and Implementation in XFOIL
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2016 › Research › peer-review

Large Wind Turbine Rotor Design using an Aero-Elastic / Free-Wake Panel Coupling Code
Research output: Contribution to journal › Conference article – Annual report year: 2016 › Research › peer-review

Results of the AVATAR project for the validation of 2D aerodynamic models with experimental data of the DU95W180 airfoil with unsteady flap
Research output: Contribution to journal › Conference article – Annual report year: 2016 › Research › peer-review

Simulations of the Flow past a Cylinder Using an Unsteady Double Wake Model
Research output: Contribution to journal › Conference article – Annual report year: 2016 › Research › peer-review

Three-dimensional viscous-inviscid coupling method for wind turbine computations
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

Development of a Fast Fluid-Structure Coupling Technique for Wind Turbine Computations
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review

Unsteady Double Wake Model for the Simulation of Stalled Airfoils
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review

A New Tip Correction Based on the Decambering Approach
Research output: Contribution to journal › Conference article – Annual report year: 2014 › Research › peer-review

A quasi-3D viscous-inviscid interaction code: Q3UIC
Research output: Contribution to journal › Conference article – Annual report year: 2014 › Research › peer-review

A strong viscous–inviscid interaction model for rotating airfoils
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

Design and validation of the high performance and low noise CQU-DTU-LN1 airfoils
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

Hybrid wake model for free vortex viscous-inviscid simulations
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

Inviscid double wake model for stalled airfoils
Research output: Contribution to journal › Conference article – Annual report year: 2014 › Research › peer-review
Simulations of the Yawed MEXICO Rotor Using a Viscous-Inviscid Panel Method
Research output: Contribution to journal › Conference article – Annual report year: 2014 › Research › peer-review

Validation of a three-dimensional viscous-inviscid interactive solver for wind turbine rotors
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

Validation of the CQU-DTU-LN1 series of airfoils
Research output: Contribution to journal › Conference article – Annual report year: 2014 › Research › peer-review

Development of a Three-Dimensional Viscous-Inviscid coupling Method for Wind Turbine Computations
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2013 › Research › peer-review

Quasi-3d aerodynamic code for analyzing dynamic flap response

Q3UIC – A new aerodynamic airfoil tool including rotational effects
Research output: Non-textual form › Sound/Visual production (digital) – Annual report year: 2011 › Research

Projects:

Shape and Topology Optimization of Aeroelastic Systems
Project: PhD

Smart Tip
Project: Research

Design of Large wind turbines using fluid-structure coupling technique
Project: PhD

Quasi-3d aerodynamic code for analyzing dynamic flap response
Project: PhD

Activities:

Dynamic Analysis of the Multi-rotor: Performance and Wake.
Activity: Talks and presentations › Conference presentations

Improved Roughness Model for 2D Viscous-Inviscid Panel Methods
Activity: Talks and presentations › Conference presentations