

NICOLA CASARI

PERSONAL INFORMATION



Born in Legnago (VR), Italy , 13 Dec 1991

Email: nicola.casari@unife.it

EDUCATION

2015–Present ENGINEERING DEPARTMENT, FERRARA

PhD

PhD Student in the turbomachinery and energy system group. Research topic "Fouling in gas turbines". The research aim is to develop a physical model which rules the deposition of particles on a gas turbine blades. This model should therefore be implemented in a CFD code in order to account for the whole engine degradation due to fouling phenomena. The research work is both experimental and numeric.

Supervisor

Prof. Michele Pinelli

2013–2015 Università degli studi di Ferrara, Ferrara, Italy

Master Degree

Ingegneria Meccanica (Mechanical Engineering)

· *Final Grade:* 110/110 cum laude.

· *Description:* The Master degree has provided me with the theory and methodological tools needed to design and develop turbomachinery, both from the standpoint of fluid dynamics and of structural resistance. During this degree I achieved advanced knowledge on the different topics characterizing the fields of mechanics of material, vibrations and gear design, heat exchange and fluid dynamics. Furthermore advanced statistics and probability subjects have been studied.

· *Thesis:* *Modeling of fouling in gas turbines*

This thesis, in collaboration with the Imperial College of London (departments of mechanical and aeronautical engineering), led me to develop and implement in a CFD code a first physical model for the particles deposition on turbine blades. It also offered me an opportunity to work and interact with an heterogeneous working group.

2015 Imperial College, London

*Erasmus+
Traineeship*

Period of 5 months during which I wrote my master thesis and a paper for ASME Turboexpo 2016.

2009–2013 Università degli studi di Ferrara, Ferrara, Italy

Bachelor Degree

Ingegneria Meccanica (Mechanical Engineering)

· *Description:* This degree provided me with the mathematics, physics, mechanics basics.

PUBLICATIONS

Nov 2015 An Energy Based Fouling model for gas turbines:
EBFOG
ASME - TurboExpo 2016 Submitted on Nov 2015, accepted for publication and presentation, labelled as *journal quality*. Will be personally held in Seoul - Jun 2016

COMPUTER SKILLS

Programming Languages C/C++, PYTHON, FORTRAN.
OS MICROSOFT WINDOWS, LINUX.
OpenFOAM Open-source CFD tool: ESI certificate of advanced course
MATLAB High-level technical computing interactive environment for algorithm development, data analysis and numerical calculations. Core instrument widely used during the master degree.
L^AT_EX High-quality typesetting system for texts, slides and vector graphics.

OTHER INFORMATION

Languages ENGLISH · Upper Intermediate - fluently speaking, well articulated writing. Taking advanced course for Cambridge ESOL certification (C1)
ITALIAN · Mother tongue.

Communication Skills My study period abroad and my final thesis project led me to deal with a wide variety of people, which in turn led me to listen carefully to the team ideas and express decisively mine.

Teamwork skills Participation and cooperation in teamwork, developed during my academic career, both for examinations projects and for the project in which I did my final thesis, working with diverse team of engineers and physician. Looking to always be an active part of the group, listening and helping the team to beat the challenges by encouraging a group atmosphere and supporting colleagues.

Interests Team sports · Countryside working (family business)

Il sottoscritto acconsente, ai sensi del D. Lgs 30/06/2003 n.196, al trattamento dei propri dati personali. Il sottoscritto acconsente alla pubblicazione del presente curriculum vitae sul sito dell' Univesità di Ferrara

May 25, 2016