



# Rafael Clemente Mallada

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github <https://github.com/Raelaf95>

Gender Male | Date of birth 29<sup>th</sup> September 1995 | Nationality Spanish

## EDUCATION

September 2013–March 2021

School of Aeronautics and Space Engineering ETSIAE.  
Technical University of Madrid, Spain.

Sept. 2018–March 2021

Master's degree in Aeronautical Engineering with a Propulsion concentration.

Sept. 2013–June 2018

Bachelor's degree in Aerospace Engineering with a Propulsion concentration.

## PUBLICATION JCR

1.

R. Clemente, F. Sastre, A. Barrero-Gil, and A. Velazquez. "Mixing downstream of a moving square cylinder in the confined laminar regime: Influence of different motion laws". *Experimental Thermal and Fluid Science*, 109:109846, 2019.

## TRAINING

Nov. 2018 – April 2019

### Internship

Fluid Mechanics and Aerospace Propulsion Department.  
UPM-ETSIAE, Pza. del Cardenal Cisneros, 3 (Spain).

– Implementation of 2D Lattice Boltzmann Method to study passive scalars transportation enhancement by spinning a cylinder.

## LANGUAGES

– Spanish Mother tongue.      – English B2.      – French B1.

## SKILLS

Programming languages

– MATLAB (Proficient).      – FORTRAN, C++ and Python (Beginner).

FEM and CFD Software

– ANSYS Fluent (Beginner).      – NASTRAN-PATRAN (Beginner).

Engineering Design

– CATIA(V5r21) Part, Assembly and Drafting modules (Independent user).

Systems Modelling

– EcosimPro PROOSIS TURBO Toolkit (Attended a 15h course).

Office Software

– Microsoft Office: Word, Excel and PowerPoint. – L<sup>A</sup>T<sub>E</sub>X (Independent user).

Experimental Methods

– Hands-on knowledge of Particle Image Velocimetry (PIV) technique.  
– Done measurements with Hot Wire Anemometer and Pressure Probes.  
– Experience with Computer Vision with MATLAB.  
– Experience with NI DAQ using MATLAB rather than LabVIEW.

Manufacturing

– Experience with G-code for an Emco milling machine.  
– Experience with Cura for 3D Printing on PLA.

Soft Skills

– Curious, am always eager to learn and have the tendency to question things.  
– Excellent teamworker with the capability to perform delegated tasks.

Driving licence

B

## LEISURE INTERESTS

Sports  
Photography

– Karate.      – Mountain Climbing and Hiking.      – Skiing.      – Archery.  
– Experience with Adobe Photoshop and Adobe Illustrator.