**PERSONAL INFORMATION**

# Alessandro Ceci

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Sex XXX | Date of birth XX/XX/XXXX| Nationality XXX

**APPLYING FOR POSITION**

Supporto tecnico ad attività di sviluppo di codici di calcolo per lo studio di flussi supersonici in geometrie complesse, ICE 68/2025

**WORK EXPERIENCE**

**15/05/2025 – to date.**
**Postdoctoral fellow at the Gran Sasso Science Institute, Mathematics, Italy**
Study of heat transfer by forced convection over rough walls in fluids with variable properties using Direct Numerical Simulation
Host: Prof. Davide Modesti

**25/01/2024 - 14/05/2025.**
**Postdoctoral fellow at Sapienza University of Rome, Italy**
"BUMP - Boundary layer Unsteadiness Mitigation through wall surface Perturbations in shock/turbulence interactions", development and validation of advanced numerical methods for the prediction of compressible wall-bounded turbulent flows in the presence of control devices. Extension of research activities linked to the PhD
Host: Prof. Sergio Pirozzoli

**01/01/2021 – 24/01/2024.**
**PhD in Aeronautical and Space Engineering at Sapienza University of Rome, Italy**
Early-Stage Researcher (ESR13) within MSCA ITN project "TEAMAero - Towards Effective Flow Control and Mitigation of Shock Effects In Aeronautical Applications". PhD Topic & Thesis: "Development of numerical tools for high-fidelity simulation of shock/boundary layer interactions".
Supervisor: Prof. Sergio Pirozzoli

**20/08/2018 - 31/12/2020.**
**Aerodynamicist at Sauber Motorsport, Hinwil, Switzerland**
Management of the automated workflow for the simulation of a Formula1 car at all attitudes, meshing, correlation activities between CFD and Wind-Tunnel/Track, HPC code optimization, RANS modelling
Group Leader: Dr. Luca Gasparini; Team Leader: Dr. Riccardo Baudille

**27/01/2018 - 19/08/2018.**
**Junior CFD Methodology Engineer at Scuderia Toro Rosso, Faenza, Italy**
Management of the automated workflow for the simulation of a Formula1 car at all attitudes, meshing, correlation activities between CFD and Wind-Tunnel/Track, HPC code optimization, RANS modelling
Team Leader: Dr. Matteo Lombardi

**28/08/2017 - 26/01/2018.**
**CFD Intern at Scuderia Toro Rosso, Faenza, Italy**
Meshing, correlation activities between CFD and Wind-Tunnel/Track, HPC code optimization
Team Leader: Dr. Matteo Lombardi

## EDUCATION AND TRAINING

**24/01/2024 - Doctorate degree** in Aeronautical Engineering at Sapienza University of Rome. Development of numerical tools for high-fidelity simulation of shock/boundary layer interactions, "Ottimo"

**03/10/2017 - Master of Science degree** in Aeronautical Engineering – Aerodynamic track. Politecnico di Milano. Italy. Erasmus Double Degree Program. 110/110 cum laude.

**08/09/2017 - Master of Science degree** in Vehicle Engineering. KTH Royal Institute of Technology. Sweden. Erasmus Double Degree Program.

**30/09/2014 - Bachelor of Science degree** in Aerospace Engineering. Politecnico di Milano. Italy. 110/110

**01/04/2025 – 31/05/2025** Lecturer for the course Introduction to High-Performance Computing, PhD course, Sapienza University of Rome (Rome)

**20/05/2024 – 21/06/2024** Lecturer for the course Fluid Mechanics, Summer I, B.Sc. in Engineering, John Cabot University (Rome)

## PERSONAL SKILLS

**Mother tongue(s)**    Italian

**Other language(s)**

| UNDERSTANDING | | SPEAKING | | WRITING |
|---|---|---|---|---|
| Listening | Reading | Spoken interaction | Spoken production | |
| English | | | | |
| C1 | C1 | C1 | C1 | C1 |
| Toefl ibt 96 | | | | |
| Swedish | | | | |
| B2 | B2 | B2 | B2 | B2 |
| Swedish B2 for Engineers (KTH) | | | | |
| German | | | | |
| A1 | A1 | A1 | A1 | A1 |
| Liceo Scientifico Giulianova M.Curie Bilingue | | | | |

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
Common European Framework of Reference for Languages

**Communication skills**    ▪ Good communication skills gained throughout my working and research experience

| Digital competence | SELF-ASSESSMENT | | | | |
|---|---|---|---|---|---|
| | Information processing | Communication | Content creation | Safety | Problem solving |
| | Proficient user | Proficient user | Proficient user | Proficient user | Proficient user |

Levels: Basic user - Independent user - Proficient user
Digital competences - Self-assessment grid

Software & Programming skills: Fortran, C++, Python, Matlab, CUDA, HIP, Intel OneAPI - MPI, OpenMP, OpenACC - Latex, Tecplot, Paraview – OpenFOAM, Ansys Fluent

**Driving licence** B

## ADDITIONAL INFORMATION

**Publications
Presentations
Projects
Conferences
Seminars
Honours and awards
Memberships
References
Citations
Courses
Certifications**

Author of 18 indexed publications in peer-reviewed journals
https://www.scopus.com/authid/detail.uri?authorId=57203655794

Contribution to 13 worldwide conferences (e.g. APS DFD, EFDC, AIAA SCITECH, ECCOMAS, AIMETA)

ESR 13 – Marie Curie PhD fellow in ITN TEAMAero Horizon 2020

Add SapiExcellence 2024 Postdoctoral Fellowship, project "Boundary layer Unsteadiness Mitigation through wall surface Perturbations in shock/turbulence interactions – BUMP", 50k €, Sapienza University of Rome

Award winner of the American Physical Society (APS) Division of fluid dynamics (DFD) 2021 Gallery of Fluid Motion with the entry 'Direct numerical simulations of turbulent pipe flow at high Reynolds number', https://doi.org/10.1103/PhysRevFluids.7.110510

Referee activities for: Journal of Fluid Mechanics, Computers and Fluids, Physical Review Fluids, AIAA Journal, Journal of Computational Physics, Theoretical and Computational Fluid Mechanics, International Journal of Heat and Fluid flow, Journal of Fluids Engineering

**Personal Data** I authorize the processing of my personal data pursuant to Legislative Decree No. 196 of June 30, 2003, "Codice in materia di protezione dei dati personali".

Il sottoscritto dichiara di essere consapevole che il presente curriculum vitae sarà pubblicato sul sito istituzionale dell'Ateneo, nella Sezione "Amministrazione trasparente", nelle modalità e per la durata prevista dal d.lgs. n. 33/2013, art. 15.

Data e Luogo, XX/XX/XXXX XXXXX                    f.to