Europass Curriculum Vitae

Personal information

Surname(s) / First name(s)	**Ciottoli Pietro Paolo**
Email(s)	pietro.ciottoli@gmail.com
Nationality(-ies)	Italian

Present Position

Mar. 2013 Mar. 2014   **Research fellow** - DIMA- "Sapienza" University of Rome

Teaching

Sept 2014-now   **Combustion Thesis Supervisor**, Master degree in Aeronautical Engineering, Prof. M. Valorani, Sapienza Univ, Rome Italy

Sept 2013-now   **Ph.D. Thesis Supervisor**, Theoretical and Applied Mechanics, Prof. M. Valorani, Sapienza Univ, Rome Italy

Feb 2015 -May 2015   **Teaching assistant in Propulsion Numerical Laboratory**, Laboratory Course in Bachelor degree in Aerospace Engineering, Prof. M. Pizzarelli, Sapienza Univ, Rome Italy

Jan 2015   **Numerical modeling of LRE thrust chambers**, Lecture Series in Master in Space Transportation Systems, Sapienza Univ, Rome Italy

Publications

April 2015   **Numerical investigation of ignition in laminar methane/LOx flamelet at supercritical pressures**, P.E. Lapenna, P.P. Ciottoli, M. Valorani, F. Creta 15th International Conference on Numerical Combustion, April 19-22 2015 Avignon, Fr

March 2015   **Numerical investigation of unsteady laminar methane/LOx flamelet at supercritical pressures**, P.E. Lapenna, P.P. Ciottoli, M. Valorani, F. Creta 7th European Combustion Meeting, March 30-April 2 2015 Budapest, Hungary

June 2013   **Two-way coupling strategies for Conditional Moment Closure Formulation and Large Eddy Simulation in Compressible Reactive Flows**, P.P. Ciottoli, M. Bernardini, S. Pirozzoli, M. Valorani, XXXVI Meeting of the Italian Section of the Combustion Institute, 12-14 June 2013 Procida IT

Apr 2013   **A Conditional Moment Closure Formulation for Large Eddy Simulation of Compressible Non-Premixed Turbulent Reactive Flows**, P.P. Ciottoli, M. Bernardini, S. Pirozzoli, M. Valorani SIAM Numerical Combustion, 11 April 2013 San Antonio TX

Oct 2012   **A Conditional Moment Closure Formulation for Large Eddy Simulation of Compressible Non-Premixed Turbulent Reactive Flows**, P.P. Ciottoli, M. Bernardini, S. Pirozzoli, M. Valorani XXXV Meeting of the Italian Section of the Combustion Institute, 10-12 October 2012 Milan IT

Sept 2012   **Methane/Air Turbulent Coaxial Jet Flame with Large Eddy Simulation and Conditional Moment Closure** , P.P. Ciottoli, M. Valorani, M. Bernardini,S. Pirozzoli, European Fluid Mechanics Conference 9, 9-13 September 2012 University of Rome "Tor Vergata"

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Work experience

Sept 2014 - now	**LOX/CH4 combustion characterization of liquid rocket engine regenerative thrust chamber (AVIO)**, Development of an LES based CFD code for supercritical reacting flows, PI Prof. M. Valorani, Sapienza Univ, Rome Italy
Jan 2012 - Dec 2013	**Hyprob (CIRA)**, Numerical simulation of oxygen/methane thrust chamber under supercritical conditions, PI Prof. M. Onofri, Sapienza Univ, Rome Italy
Jan 2010- Dec 2012	**ISP1**, in-Space Propulsion 1 (ONERA, DLR, EADS), Numerical simulation of oxygen/methane thrust chamber, PI Prof. M. Onofri

Education and Qualifications

Nov. 2009-Dec 2013 **Ph.D.** in the program **Theoretical and Applied Mechanics** in the Department of Mechanical and Aerospace Engineering - University of Rome "La Sapienza"

Ph.D. Thesis:
"Conditional Moment Closure for LES of Compressible Reactive Flows"
Supervisor: Dr. M. Valorani
Tutor: Prof. C.M. Casciola

July 2013	**Short course in Parallel Computing with MPI and OpenMP** - CINECA computing centre
Jan 2011	**Short course in science code optimization** - CASPUR computing centre
Marc 2010	**Short course in C programming** - CASPUR computing centre
July 2010	**Short course in Fortran programming** - CASPUR computing centre

June 2012 **Combustion in Aero Engines** - Von Karman Institute for Fluid Dynamics, 4 to 7 June 2012

Sept . 2009 **Master degree in Aeronautical Engineering** - "Sapienza" University of Rome

Attended Classes:
Gas dynamics
Computational aerodynamics
Computational gas dynamics
Aeroelasticity
Turbulence
Airplane aerodynamics
Aerospace propulsion
Aeronautical engines
Engines environmental impact
Solid rocket motors
Liquid rocket engines
Aerospace structures
Aeronautical structures
Fundamentals of control
Flight dynamics
Mathematical methods in engineering

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Air traffic control

Feb. 2006	**Bachelor degree in Aerospace Engineering** - "Sapienza" University of Rome
July 2002	**Diploma** - Liceo Ginnasio Statale Pilo Albertelli

In-depth study of:
Italian Literature
History
Philosophy
Latin and Ancient Greek
Latin and Ancient Greek history and literature
History of art

Personal skills and competences

Italian

Mother tongue

Other languages
English - working knowledge
French - read and comprehension abilities

Technical skills and competences
Working knowledge with the following OS:

Windows
Dos
Mac
Unix-based

Programming skills in: Fortran, MPI - OpenMP parallel programming
Basic knowledge of: C, Python
Scripting languages - bash, tcsh

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