

11/04/2016
P. Ciottoli

Europass Curriculum Vitae

Personal information

Surname(s) / First name(s)

Ciottoli Pietro Paolo

Nationality(-ies)

Italian

Date of birth

Aug. 21 1983

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 -now

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

Jan 2015-now

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

Publications

Jan 2016

The effect of fuel composition on the non-premixed flame structure of LNG/LOx mixtures at supercritical pressure, P.E. Lapenna, P.P. Ciottoli, F. Creta AIAA SciTech 2016, January 4-8 2016 San Diego, California

Aug 2015

Dynamical system analysis of ignition phenomena using the Tangential Stretching Rate concept, M. Valorani; S. Paolucci; E. Martelli; T. Grenga; P.P. Ciottoli. Combustion and Flame, 28, 2015

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

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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"

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

Feb. 2006

Bachelor degree in Aerospace Engineering - "Sapienza" University of Rome

Personal skills and competences

Mother tongue

Italian

Other languages

English - working knowledge

French - read and comprehension abilities

Programming skills in: Fortran, MPI - OpenMP parallel programming

Basic knowledge of: C, Python

Scripting languages - bash, tcsh