

PERSONAL INFORMATION

Carlo BEATRICE

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Sex Male | Date of birth 05/11/1966 |

Nationality Italian

WORK EXPERIENCE

- From 2020 – today
 - RESEARCH DIRECTOR
 - NATIONAL RESEARCH COUNCIL OF ITALY**
 - STEMS - Via Marconi, 4 – 80125 Napoli - Italy
 - RESEARCH ON TECHNOLOGIES FOR ADVANCED POWERTRAINS
- From 2006 – to 2020
 - FIRST RESEARCHER
 - NATIONAL RESEARCH COUNCIL OF ITALY**
 - Via Marconi, 4 – 80125 Napoli - Italy
 - RESEARCH ON TECHNOLOGIES FOR ADVANCED POWERTRAINS
- From 1999 – to 2006
 - RESEARCHER
 - NATIONAL RESEARCH COUNCIL OF ITALY**
 - Istituto Motori - Via Marconi, 4 – 80125 Napoli - Italy
 - RESEARCH ON TECHNOLOGIES FOR ADVANCED POWERTRAINS

EDUCATION AND TRAINING

- 2013- today
 - MEMBER OF ACADEMIC BOARD OF INTERNATIONAL PHD PROGRAM IN ENERGY SCIENCE AND ENGINEERING AT UNIVERSITY OF NAPLES “PARTHENOPE”
- 2016
 - NATIONAL SCIENTIFIC QUALIFICATION AS FULL PROFESSOR IN THERMAL AND FLUID MACHINES - 09/C1
- From 1999- to 2001
 - PHD IN INTERNAL COMBUSTION ENGINES
 - UNIVERSITY OF L'AQUILA**
 - Specialization on INTERNAL COMBUSTION ENGINES
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- From 1999- to 2001
 - DEGREE IN MECHANICAL ENGINEERING
 - UNIVERSITY OF NAPLES 'FEDERICO II'**
 - Specialization on Thermal Machines

PERSONAL SKILLS

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|-------------------|---------------|---------|--------------------|-------------------|---------|
| Mother tongue(s) | Italian | | | | |
| Other language(s) | UNDERSTANDING | | SPEAKING | | WRITING |
| | Listening | Reading | Spoken interaction | Spoken production | |
| English | C1 | C1 | C2 | C2 | C2 |

PROJECTS

Coordination:

MIPAAF Project: Eco-friendly technologies for the recovery and energy valorisation of crude glycerine as a by-product of the biodiesel chain. Bando MIPAAF DM 246/07. Decreto ministeriale MIPAAF n°17534/7303/2010.

Scientific responsible for CNR in National and European Projects:

- *European Projects:* H2020 - Vision xEV (Virtual Component and System Integration for Efficient Electrified Vehicle Development) – N° LC-GV-2018 GA No. 824314; FP7 - Technologies for Synthesis, Recycling and Combustion of Metallic Nanoclusters as Future Transportation Fuels - COMETNANO - Grant agreement ID: 229063; FP6 - Innovative particle trap system for future Diesel combustion - IPSY- Grant agreement ID: D/552152-TST5-CT-2006-031410;
- *National Projects:* PON MIUR 2015-2020 “EXTREME - Innovative technologies for EXTREMely Efficient spark ignited engines”. MIUR.AOODPFSR.REGISTRO DECRETI.0001735.13-07-2017; PON 2010/MIUR “ELETTRONICA DI CONTROLLO, SISTEMA D'INIEZIONE, STRATEGIE DI COMBUSTIONE, SENSORISTICA E TECNOLOGIE DI PROCESSO INNOVATIVI PER MOTORI DIESEL A BASSE EMISSIONI INQUINANTI”. decreto MIUR Prot. 0004530/Ric. del 16/12/2014; FIRB/MIUR “Motopropulsore Diesel a bassissime emissioni per applicazioni veicolari e commerciali”. Decreto MIUR n° 1621/Ric. del 30/10/2007, Progetto BIP069JBE /2006;

Director of WP in European Projects:

- *European Project:* EU FP7 - Collaborative Project 1 Large Scale Integrating Project - Clean European Rail-Diesel - CleanER-D – Grant Agreement SCP8-GA-2009244338;

Responsible of WP or Tasks in National and European Projects: 17 National and European projects from 1993 to today;

Responsible of Research Projects funded by Industrial Companies: Over 20 National and International projects from 2006 to today with a total budget over than 4 M€;

PUBLICATIONS

Author of 138 Scopus indexed publications, and about 40 papers presented in International peer reviewed Conferences.

Scopus Author ID: 7004523867 / ORCID ID: [HTTPS://ORCID.ORG/0000-0001-6778-272X](https://orcid.org/0000-0001-6778-272X)

FIVE MAIN REPRESENTATIVE PUBLICATIONS IN THE LAST FIVE YEARS

1. Di Blasio G., et al., Hydrotreated vegetable oil as enabler for high-efficient and ultra-low emission vehicles in the view of 2030 targets, Fuel, Volume 310, Part B, 2022, 122206, ISSN 0016-2361, <https://doi.org/10.1016/j.fuel.2021.122206>.
2. Doulgeris S., et al.. Assessment and design of real world driving cycles targeted to the calibration of vehicles with electrified powertrain. International Journal of Engine Research. 2021;22(12):3503-3518. doi:10.1177/14680874211038729;
3. Reinhard Tatschl, et al.. Virtual Component and System Integration for Efficient Electrified Vehicle Development. Proceedings of 8th Transport Research Arena TRA 2020, April 27-30, 2020. (Helsinki, Finland).
4. Gessica O., et al., Combustion sensitivity to the nozzle hole size in an active pre-chamber ultra-lean heavy-duty natural gas engine, Energy, Volume 235, 2021, <https://doi.org/10.1016/j.energy.2021.121298>.
5. Di Maio, D.; Beatrice, C.; et al.. Modeling of Three-Way Catalyst Dynamics for a Compressed Natural Gas Engine during Lean–Rich Transitions. Appl. Sci. 2019, 9, 4610. <https://doi.org/10.3390/app9214610>

EDITOR AND REVIEWER

Editorial Board Member: Transportation Engineering (Elsevier),

Reviewer: Progress in Energy and Combustion Science, Fuel, Energy, Energy Conversion and Management, Applied Thermal Engineering, Experimental Thermal and Fluid Science, Applied Energy, Biomass and Bioenergy, Energy Efficiency (Elsevier); SAE International; Energy & Fuels (ACS)

Signature

