

CURRICULUM VITAE E STUDIORUM

MAURIZIO BUSETTO

First Name **Maurizio** Last Name **Busetto**

Born in

Nationality **Italian**

Address:

Mobile :

email:

Education

1989-1996 Master degree in physics, at the University of Bologna, Faculty of Science, Mathematics, Physical and Natural. (110/110)

Thesis: "The least action principle in cosmology"; study of cosmology, local group of galaxies, dynamic, variational principles by using Fortran and numerical methods.

1984-1989 Technical High School Diploma in Industrial Physics (50/60)

Professional experience

December 2018 – up to now : research engineer (Tecnologo) at ISAC-CNR (Institute for Atmospheric Sciences and Climate – Italian National Research Council)

Responsible of the Measurements pole of the ISAC technical Department

2016 – 2018: sole proprietorship holder

Development of solutions for atmospheric and environmental research:

Aerosol and gas inlets, design of atmospheric observatories, development of a Particles Soot Absorption photometer, development of acquisition software for atmospheric instrumentation.

Collaboration with schools for the development of raspberry and arduino based didactic projects.

PI of EUROCHAMP Trans National Access entitled: “Characterization and calibration of a new instrument for filter-based measurement of aerosol absorption coefficient at 5 wavelength” to be held in September 2018 at the CESAM chamber (Paris).

March 2017-August 2017 : fixed term part time (50%) position as research engineer at ISAC – CNR (Institute for Atmospheric Sciences and Climate – Italian National Research Council)

Development of measurements and acquisition system for ozone and radiative regime in polar and remote areas.

2006 - 2017: research fellowship position at ISAC – CNR (Institute for Atmospheric Sciences and Climate – Italian National Research Council)

Responsible of measurement campaign and observatories. Development of integrated acquisition system and portable atmospheric measurements system.

Development of software for data analysis, delivery and web visualization.

Study of the radiative regime and aerosol optical properties over polar areas.

Production of technical report and peer-revised paper using statistical method for climatological and atmospheric dataset (time-series analysis, correlation, comparison with other dataset, data rejection, multi-variable regression)

Involved in the following projects:

AIRSEA LAB (Climate air pollution interaction in coastal environment)

Responsible for the logistic and the technical part for the measurement system installation on the Amerigo Vespucci.

I-AMICA (High Technology Infrastructure for Integrated Climatic-Environmental Monitoring):

Responsible for the development, installation and management of the Environmental-Climatic observatories in Lecce, Lamezia Terme and Capo Granitola (Italy).

NEXT-DATA (National system for the retrieval, storage, access and diffusion of environmental and climate data from mountain and marine areas) and SHARE (Stations at High Altitude for Research on the Environment)

Maintenance of Monte Cimone and Pyramid NCOP (Nepal) WMO station stations.

CICCI (Cooperative Investigation of Climate-Cryosphere Interaction)

Development of a measurement system for tethered balloon (gondola) and its test on field; maintenance of the Climate Change Tower for boundary layer measurements at Ny-Alesund (Svalbard Island).

BSRN (Baseline surface Radiation Network) and TAVERN (quantification of tropospheric aerosol and thin clouds variability including the radiation budget over the east Antarctic plateau).

Responsible of the BSRN station at Dome C and for the data submission to the international network; installation and development of acquisition system for aerosol measurements .

STRRAP-B (STudy of the Radiative Regimes over the Antarctic Plateau and beyond):

development of a snow reflectance measurement system mounted on a skidoo sledge for the validation of satellite data (MODIS) by performing transect of 1 km square in correspondence of satellite overpass.

Abroad field campaigns during my activity ad ISAC:

Italian-French station Concordia, Dome C, Antarctica (75°S 123°E 3230 m. a.s.l.):

summer campaign:

November 2016 – February 2017 ; November 2015 – February 2016 ; November 2011 – February 2012 ; November 2010 – February 2011 ; November 2009 – February 2010

and of the 3rd Winter Over : November 2006 - December 2007

responsible of meteorological and atmospheric measurements, development of automatic procedure for the aviation meteorological application (Metar file) performing of radio-sounding and ozone-sounding. Training of Concordia station winter-over for meteorology and atmospheric physics

Katmandu City and NCO-P station (28°N 87°E 5079 m a.s.l.), Nepal:

May 2014 ,

rearrangement of the both suskat (Katmandu) and NCOP station (Lobuche Valley).

Ny-Alesund, Svalbard Islands, Norway (78°N 11°E):

July 2011 and March 2011,

maintenance of the Climate Change Tower and aerosol measurement at Gruvebadet, performing of atmospheric vertical profile using tethered balloon and the developed gondola.

May 2003 - July 2006: fixed-term position at ARPA (Regional Agency for Prevention and Environment), Bologna (Italy) as engineer technical prevention in the environment and in workplaces for what concern electromagnetic fields, and air quality

April 2002- May 2003: fixed-term position at D.E.G. Society of Applied Physics, Bologna (Italy) as consultant for the development of software to calculate the induction magnetic field produced by electrical power lines.

Teaching activities

March 2016 : co-relator of master degree thesis at University of Bologna, faculty of Physics
Title: “Surface cloud radiative forcing from broadband radiation measurements on the Antarctic Plateau”

January 2002 - March 2002: contract teacher at the Italian School Galileo Galilei, Addis Abeba (Ethiopia): mathematics and physics.

June 1996 – December 2001: consultant at Editor spa Zanichelli, Bologna (Italy) revision and correction of high schools text in mathematics and physics for (Zanichelli Ed s.p.a – Bologna) and **high school teacher** of mathematics and computer science.

Computation skills

Programming languages and scripting:

Python, Bash, AWK, C, Kermit, Fortran, Gnuplot, Tkinter, OpenCV, HTML

OS:

Linux, DOS, Windows.

other:

Programming of data-loggers Campbell.

Use of radiative transfer code (SBDART, 6S).

Programming of Linux embedded board (raspberry PI).

Programming of ARDUINO.

Technical skills

Knowledge of communication protocols : I2C, SPI, RS232/442, USB, TCP/IP

Knowledge of electronics : built of circuits for signals processing

Knowledge of basic mechanics

Language skills

Italian: Mother tongue

English: Good

French: Good (oral)

Referee contacts