CURRICULUM VITAE et STUDIORUM
FOR STEFANIA ARGENTINI
May, 2020

PERSONAL DETAILS

HOME ADDRESS: Via Agrigento, 3 Rome , ITALY
DATE OF BIRTH: 21-07-1959, ITALY
CITIZENSHIP : Italian
WORK ADDRESS: Institute of Atmospheric Sciences and Climate, CNR
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EDUCATION

- 1986: ***Laurea* in Physics** at the University of Rome "La Sapienza".
- 1987: **post-Laurea fellowship** at the Italian National Meteorological Service. Specialization in atmospheric physics and meteorology;
- 1988: wins the PhD competition at the University of Rome "la Sapienza".
- April 1987 to September 1988: ***post-laurea* fellowship** with the Applied Climatology Group of the Institute for Atmospheric Physics, Italian National Research Council.
- 1989 → 2002: **Reasearch Scientist** at the Institute of Atmospheric Sciences and Climate (ISAC) of CNR in Rome, Italy.
- September 1989 to September 1990: **Research Scientist** at NASA/Goddard Spece Flight Center, Severe Storms Branch, in Washington D.C USA.
- 2002 → now: **Senior Reasearch Scientist** at the Institute of Atmospheric Sciences and climate (ISAC) of CNR in Rome, Italy.
- August- September 2003: **NATO senior fellowship** at BAS (British Antarctic Survey) in Cambridge – England for testing parameterization schemes into Antarctic mesoscale and large circulation models

PRESENT REASEARCH POSITION

Research Senior Scientist at CNR's Institute of Atmospheric Science and Climate (ISAC), Rome.

RESEARCH AREA EXPERIENCE (Summary)

Boundary layer meteorology, surface energy budget, acoustic remote sensing, data analysis of sodar and lidar data, urban boundary layer, antarctic boundary layer, field experiments.

RESEARCH ACTIVITIES

Thirty years of research experience in the field of atmospheric science. Worked on boundary layer parameterization and the low level circulation in Antarctic, Arctic and in midlatitude regions in the frame of different scientific programmes as co-investigator or principal investigator. In the frame of the different proposal. in the various programs he has designed and implemented experiments to support the definition of new parameterization schemes.
For several years was responsible of the proposals for the study of the Planetary boundary layer at the French Italian plateau station of Concordia in Antarctica.

Attended and teached at summer schools, organised international workshops and conferences. Revised many papers submitted on international Journals. Was/is tutor of international fellowships of the EU and NATO. She also was editor of special issues of the international journals.

Revised several proposal submitted at international agencies as for esample proposal of the European Commision (V° Programma Quadro SME Specific Measures (Craft Proposals), V° Programma Quadro Panel for Global Change, Climate and Biodiversity. Deutch NOW/ALW VENI proposals, English NERC proposals, etc....

In addition to research at ISAC-CNR spent:

- 16 months at Severe Storm Branch of Goddard NASA in Washington D.C. USA; worked in improving the boundary layer parameterisations schemes of surface turbulent fluxes in the NASA GMASS mesoscale model.
- 2 months at BAS (British Antarctic Survey) Cambridge-England; worked on a comparative study of the atmospheric processes in Antarctica at the English Halley coastal station and the French-Italian station of Concordia on the Antarctic plateau at Dome C.
- Several months in Antarctica during three different expedition; was responsible of the experiments and the field operation at Dumont D' Urville (two times) and at Concordia station.
- One month month in the Arctic; was responsabile for the set up of an experiment in the frame of the EU Experiment ARTIST.
- One month in India; participated to the construction of an indian Doppler Sodar.
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TEACHING ACTIVITY

2002-2003	"Experimental Meteorology" course at the University of Rome "Tor Vergata ".
2004-2011	"Laboratory of Atmospheric Physics" at the University of Rome Tor Vergata for the three-year degree
2011-today	Course of "Laboratory of Atmospheric Physics" at the University of Rome Tor Vergata for the Master's Degree

Peer review pubblications

1 Lavagnini, A., S. Argentini, R. Carullo, 1988: Wind field modifications due to an anemometric tower. Il Nuovo Cimento, 11, 619-627.

2 Argentini, S., A. Lavagnini, R. Carullo, 1991: Climatological and dynamical aspects of the wind regime in the strait of Messina. Il Nuovo Cimento, 14, 135-143.

3 Argentini, S., P.J. Wetzel and V.P. Karyampudi, 1992: Testing a detailed biophysical parameterization for land-air exchange in a high-resolution boundary-layer model. J. Appl. Meteor., 31,2,142-156.

4 Argentini, S., G. Mastrantonio, G. Fiocco and R. Ocone, 1992: Complexity of the wind field as observed by a Sodar system and by automatic weather stations on the Nansen Ice Sheet, Antarctica, during summer 1988-89: two cases studies; Tellus 44 B, 422-429.

5 Argentini, S. and G. Mastrantonio, 1994: Barrier winds recorded during two summer campaingns and their interaction with the katabatic flows as observed by a triaxial doppler sodar; Int. J. Remote Sensing, vol. 15, 2, 455-466.

6 Mastrantonio G., A.P. Viola, S. Argentini, G. Fiocco, L. Giannini, L. Rossini, G. Abbate, R. Ocone, M. Casonato, 1994: Observations of sea breeze events in Rome and the surrounding area by a Network of Doppler sodars. Boundary Layer Meteorology vol. 71, 67-80.

7 Argentini S., P. Del Buono, A. M. Della Vedova, G. Mastrantonio, 1995: A statistical Analysis of Wind in Terra Nova bay, Antarctica for the Austral Summers 1988 and 1989. Atmos. Res. 39, 145-156.

8 Wetzel P.J. , S. Argentini, A. Boone, 1996: The role of land surface in controlling daytime cloud amount: two case studies in the GCIP-SW area . J. of Geophysical Research. vol. 101, pp 7359-7370.

9 Argentini S., G. Mastrantonio, A. Viola, P. Pettre', G. Dargaud, 1996: Sodar performances and preliminar results after one year measurements at Adelie coast, East Antarctica. Boundary Layer Meteorology vol. 81, 75-103.

10 Giannini L., S. Argentini, G. Mastrantonio, L. Rossini, 1997; Estimation of flux parameters from sodar wind profiles during a field experiment in the Tyber valley. Atmospheric Environment vol. 31, 1307-1313.

11 Mastrantonio G. and S. Argentini, 1997: A modular PC-Based multiband sodar system. Acoustic Remote Sensing Applications. PP. 105-116. Narosa Publishing House. Edited by S.P. Singal.

12 Gera B. S., S. Argentini, G. Mastrantonio, A. Viola, 1998; Characteristics of the boundary layer thermal structure in a coastal region of Adelie Land, East Antarctica. Antarctic Science (10), 89-98.

13 Argentini S., G. Mastrantonio, A. Viola, 1999; Estimation of turbulent heat fluxes and exchange coefficients for heat at Dumont d' Urville . East Antarctica. Antarctic Science 11(1), 93-99.

14 Argentini S., G. Mastrantonio, F. Lena, 1999; Case Studies of the Wintertime Convective Boundary-Layer Structure in the Urban Area of Milan, Italy. Boundary Layer Meteorology, Vol. 93 , 253-267.

15 Viola A., I. Petenko, G. Mastrantonio, S. Argentini, V. A. Bezverhnii, 1999; Diurnal variations of the temperature variations and their influence on wind regime in a confluence zone of Antarctica. Meteorol. Atmos. Phys. 70, 133-140.

Mastrantonio G., J. Naithani, P. Anderson, S. Argentini, I. Petenko,1999; Quantitative Analysis and Interpretation of Dot Echoes Observed with a Doppler Sodar. Journal of Atmospheric and Oceanic Technology vol. 16, 1928-1940.

Mastrantonio G., V. Malvestuto, S. Argentini, T. Georgiadis, A. Viola, 1999; Evidence of a convective boundary layer developing on the Antarctic plateau during the summer. Meteorol. Atmos. Phys. 71, 127-132.

Petenko I. V., A. I. Gratchev, G. A. Bush, G. Mastrantonio, S. Argentini, 2000, Determination of the Speed and Direction of Transport of Localisesd Atmospheric Formations with the Aid of Sodar Three-Point Observations. Atmospheric and Oceanic Physics vol. 36. N°4, 465-472.

Pettre' P. and S. Argentini, 2001; On the vertical velocity sodar measurements in the region of Dumont d' Urville, East Antarctica. Geophysical Research Letters Vol. 28, N° 5, 783-786.

Petenko I. V. and S. Argentini, 2001 ; The Daily Behaviour of Pressure and Its Influence on the Wind Regime in East Antarctica During Winters 1993 and 1994. J. of Appl. Meteor. Vol. 40 N° 7, 1255-1264.

Argentini S. , I. V. Petenko, G. Mastrantonio, V. A. Bezverkhnii, and A. P. Viola, 2001; Spectral characteristics of East Antarctica Meteorological Parameters during 1994. J. of Geophysical Research, Vol. 106, N° D12, p. 12463-12476.

Naithani J., G. Mastrantonio, S. Argentini, P. Pettré, 2001; Influence of cyclonic perturbations on surface winds around Dumont d' Urville, East Antarctica. J. of Geophysical Research Vol. 106, N° D15, p 17093-17102.

Beine H. J., S. Argentini, A. Maurizi, G. Mastrantonio, A. Viola, 2001. The local wind field at Ny-Alesund and the Zeppelin mountain at Svalbard. Meteorol. Atmos. Phys. 78 (2001) 1/2, 107-113.

Petenko I., S. Argentini, 2002, The Annual Behaviour of the Semidiurnal and Diurnal pressure Variations in East Antarctica. J. of Appl. Meteor. Vol. 41, No 11, 1093-1100.

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Argentini S., A. P. Viola, G. Mastrantonio , A. Maurizi, T. Georgiadis, M. Nardino, 2003; Characteristics of the Boundary Layer at Ny-Alesund in Arctic during the ARTIST Field Experiment. , Annals of Geophysics vol. 46, N° 2 pag. 185-196.

Naithani, J., S. Argentini, G. Schayes, G. Mastrantonio, 2003, Analysis of strong wind events around Adelie land, East Antarctica. Annals of Geophysics vol. 46, N° 2 , pag. 385-399.

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Martano P., D. Cava, G. Mastrantonio, S. Argentini and A. Viola, 2005. Sodar detected top-down convection in a nocturnal cloud-topped boundary layer: a case study. Boundary Layer Meteorology, vol. 85-103.

Argentini S., A. Viola, A. Sempreviva, I. Petenko, 2005; Summer PBL height at the plateau site of Dome C, Antarctica. Boundary Layer Meteorology. Vol. 115 Number 3, 409-422.

33 King J.C., Argentini S., P. Anderson, 2006. Contrasts between the summertime surface energy balance and boundary layer structure at Dome C and Halley stations, Antarctica. J. of Geophysical Research Vol. 3 D02105.(13 pagine).

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Argentini S. and G. Mastrantonio.2007 Atmosfera: Lo strato limite. Enciclopedia Scienza e Tecnica. Pp. 425-436. Istituto della Enciclopedia Italiana fondata da Giovanni Treccani.

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38 Argentini S. and I. Pietroni, 2010, An Integrated Observing System for Boundary Layer Monitoring at Concordia Station, Antarctica. Chapter book of "Integrated Ground-Based Observing Systems - Applications for Climate, Meteorology, and Civil Protection", Cimini, Marzano, and Visconti Eds., Springer, ISBN 978-3-642-12967-1, DOI: 10.1007/978-3-642-12968-1, 2010.

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Waves in the Turbulent Layer During the Morning Development of Convection at Dome C, Antarctica. Boundary-Layer Meteorol. DOI: 10.1007/s10546-016-0173-6 .

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