

## **Paolo Bonasoni – Curriculum vitae**

**Paolo Bonasoni**

**Consiglio Nazionale delle Ricerche**

**Istituto di Scienze dell'Atmosfera e del Clima**

**Via Gobetti 101, 40129 Bologna, Italia**

**E-mail [p.bonasoni@isac.cnr.it](mailto:p.bonasoni@isac.cnr.it)**

**ORCID.org/0000-0002-8812-5291**

**IDScopus Author ID: 7004399781**

**ResearcherID: C-6338-2015**

### **Education**

Doctoral degree in Physics at the University of Bologna in 1985. Advisor: Prof. Ottavio Vittori.

### **Present position**

Research Director at the Institute of Atmospheric Sciences and Climate of the Italian National Research Council.

Head of the Climate HOTSPOT Division at the ISAC-CNR.

### **Main research interest**

He has more than 30 years research experience in the field of atmospheric studies and technological research in high mountain regions and in remote areas.

In the period 1994-2015 he was the head of the "O. Vittori" CNR GAW Global Station at Monte Cimone (2165 m, Italy), which he founded in the nineties. Since 2006 he is in charge of the Global GAW Station EvK2CNR Nepal Climate Observatory - Pyramid (5079 m) in the Himalaya.

He is involved as Principal Investigator or Scientific Responsible in several international, European and national Projects (see list below) and is involved in tropospheric ozone study and experimental activity at Dome Concordia, Antarctica. Deputy in many scientific cooperation agreements and member of expeditions to Antarctica and Himalayas. Coordinator of the I-AMICA PON project (2012-2015), a project developed in the framework of the Italian "Programma Operativo Nazionale Ricerca e Competitività" of the European Development Fund and active until 2020. At present coordinator of POR-FESR project INFORMARE and coordinator, for ISAC-CNR, of CISAS MIUR project.

He has published more than 110 peer reviewed journal papers, many of which related to studies on background atmospheric condition in mountain regions and tropospheric ozone.

### **Teaching and education**

Contract Professor of Environmental Physics Laboratory to the Department of Environmental Sciences of Urbino University, Italy, from 2002 to 2005.

In the year 2004 he promoted "Il Sentiero dell'Atmosfera - The Atmosphere Path", an educational path for schools and tourists on the slopes of Monte Cimone.

### **Roles and Activities**

Responsibility or coordination of scientific international and national projects, many of them related to studies and technological researches in mountain or remote areas.

- Project Manager of the EU project VOTALP - Vertical ozone Transports in the Alps; 1996-1998.
- Project Manager of the EU project VOTALP II - Vertical ozone transports in the Alps; 1998-2000.
- Project Manager of the EU project MINATROC - MINeral dust And TROpospherich Chemistry; 2000-2003.

- Project Manager of the EU project STACCATO "Influence of Stratosphere-Troposphere Exchange in a Changing Climate on Atmospheric Transport and Oxidation Capacity"; 2000-2002.
- Project Manager of the ESA project: DUP-POLPO Pollution Hot Spot Monitoring from Gome Applied to the Po-Basin; 2001-2002.
- Project Manager of the INRM Italian project "L'atmosfera e le montagne italiane dalle Alpi al Mediterraneo: identificazione e ruolo delle stazioni di monitoraggio in alta quota"; 2002-2003.
- Project Manager of the CESI Italian project : OZOMONT - Studio degli andamenti delle serie storiche di ozono troposferico rilevate nelle stazioni di Platau Rosa e di Monte Cimone; 2004-2004.
- Project Manager of the PNRA project DO3meCO2 - Trace gas concentrations and aerosol optical characteristic measurements at Terra Nova Bay and Dome Concordia stations; 2004-2007.
- Head of Unit in the framework of the EU project: ACCENT- Atmospheric composition change: an European network; 2004-2009.
- Project Manager of the EvK2CNR project: SHARE Station at High Altitude for Research on the Environment; 2005-2013.
- Project Manager of the CESI project OZOMONT II - Identificazione di processi di trasporto di masse d'aria di origine naturale ed antropica e valutazione della loro influenza in aree remote di alta montagna ed in aree urbane; 2005-2005.
- Head of Unit in the framework of AEROCLOUDS - Studio degli effetti diretti ed indiretti di aerosol e nubi sul clima; 2006-2009.
- Project Manager of the EU project EUSAAR - European Supersites for Atmospheric Aerosol Research; 2006-2011.
- Head of the Convention aimed at the realization of educational proposals and dissemination of scientific activities at the research station CNR-ISAC "O. Vittori" - Monte Cimone; 2004-2014.
- Project Manager of the SHARE-Tech Station at High Altitude for Research on the Environment - Advanced Technological Research and Development; 2008-2012.
- Project Manager of the EU project ACTRIS - Aerosols, Clouds, and Trace gases Research InfraStructure Network, 2012-2015.
- Head of Unit in the framework of Next-Data; 2013-2015.
- Project Manager of the PON project I-AMICA - Infrastruttura di Alta tecnologia per il monitoraggio Integrato Climatico-Ambientale; 2012-2015, active until 2020.
- Project Manager for ISAC-CNR Institute of the MIUR project: CISAS - Centro Internazionale di Studi Avanzati su Ambiente, ecosistema e Salute umana; 2016-2019.
- Project Manager of the POR-FESR project: INFORMARE - Sistema informativo integrato per il litorale emiliano-romagnolo; 2017-2019.

#### Related ISI Publications

- D. Cesari, E. Merico, A. Dinoi, A. Marinoni, **P. Bonasoni**, D. Contini. Seasonal variability of carbonaceous aerosols in an urban background area in Southern Italy. *Atmospheric Research* 200, 97-108, 2018.
- D. Putero, A. Marinoni, **P. Bonasoni**, F. Calzolari, M. Rupakheti, P. Cristofanelli. Black Carbon and Ozone Variability at the Kathmandu Valley and at the Southern Himalayas: A Comparison between a "Hot Spot" and a Downwind High-Altitude Site. *Aerosol and Air Quality Research*, 18: 623–635. doi: 10.4209/aaqr.2017.04.0138, 2018.
- D. Cesari, G. E. De Benedetto, **P. Bonasoni**, M. Busetto, A. Dinoi, E. Merico, D. Chirizzi, P. Cristofanelli, A. Donato, F. M. Grasso, A. Marinoni, A. Pennetta, D. Contini. Seasonal variability of PM2.5 and PM10 composition and sources in an urban background site in Southern Italy. *Science of The Total Environment*. 612, 202-213, 2018.
- M. Rinaldi, G. Santachiara, A. Nicosia, M. Piazza, S. Decesari, S. Gilardoni, M. Paglione, P. Cristofanelli, A. Marinoni, **P. Bonasoni**, F. Belosi. Atmospheric Ice Nucleating Particle measurements at the high mountain observatory Mt. Cimone (2165 m a.s.l., Italy). *Atmospheric Environment*. 171, 173-180, 2017.

- Schultz MG, Schröder S, Lyapina O, Cooper O, Galbally I, Petropavlovskikh I, **Bonasoni P.** et al. Tropospheric Ozone Assessment Report: Database and Metrics Data of Global Surface Ozone Observations. *Elem Sci Anth.* 2017; 5:58. DOI: <http://doi.org/10.1525/elementa.244>. 2017.
- Cristofanelli P.; Busetto M.; Calzolari F.; Ammoscato I.; Gulli D.; Dinoi A.; Calidonna C.R.; Contini D.; Sferlazzo D.; Di Iorio T.; Piacentino S.; Marinoni A.; Maione M.; **Bonasoni P.** (2017). Investigation of reactive gases and methane variability in the coastal boundary layer of the central Mediterranean basin. *Elem Sci Anth.* 2017; 5:12. DOI: <http://doi.org/10.1525/elementa.216>. 2017.
- Marco Pandolfi, Lucas Alados-Arboledas, Andrés Alastuey, Marcos Andrade, Begoña Artiñano, John Backman, Urs Baltensperger, **Paolo Bonasoni**, Nicolas Bukowiecki, Martine Collaud Coen, Paolo Laj et al. A European aerosol phenomenology-6: Scattering properties of atmospheric aerosol particles from 28 ACTRIS sites, *Atmos. Chem. Phys. Discuss.*, <https://doi.org/10.5194/acp-2017-826>, 2017.
- Adelaide Dinoi, Daniela Cesari, Angela Marinoni, **Paolo Bonasoni**, Angelo Riccio, Elena Chianese, Giuseppina Tirimberio, Attilio Naccarato, Francesca Sprovieri, Virginia Andreoli, Sacha Moretti, Daniel Gulli, Claudia R. Calidonna, Ivano Ammoscato, Daniele Contini. Inter-Comparison of Carbon Content in PM<sub>2.5</sub> and PM<sub>10</sub> Collected at Five Measurement Sites in Southern Italy. *Atmosphere*, 8 (12), 243; doi:10.3390/atmos8120243. 2017.
- Abeli T, Guasconi DB, Mondoni A, Dondi D, Bentivoglio A, Buttafavi A, Cristofanelli P, **Bonasoni P.** Acute and chronic ozone exposure temporarily affects seed germination in alpine plants. *Plant Biosystems*, 151, 304-315, 2017.
- Moore, G.W.K.; Cristofanelli, P.; **Bonasoni, P.**; Verza, G.P.; Semple, J.L. Automatic weather station observations of the april 2014 mount everest avalanche. *Arctic Antarctic and Alpine Research*, 49, 321-330, 2017.
- Brattich, E.; Orza, J.A.G.; Cristofanelli, P.; **Bonasoni, P.**; Tositti, L. Influence of stratospheric air masses on radiotracers and ozone over the central mediterranean. *Journal of Geophysical Research-Atmospheres* 122, 7164-7182, 2017.
- Putero, D.; Cristofanelli, P.; Sprenger, M.; Skerlak, B.; Tositti, L.; **Bonasoni, P.** Steflux, a tool for investigating stratospheric intrusions: Application to two wmo/gaw global stations. *Atmospheric Chemistry and Physics*, 16, 14203-14217, 2016.
- Semple John L., Moore G.W. Kent, Koutrakis Petros, Wolfson Jack M., Cristofanelli Paolo, and **Bonasoni Paolo.** High Concentrations of Ozone Air Pollution on Mount Everest: Health Implications for Sherpa Communities and Mountaineers. *High Altitude Medicine & Biology*. DOI: 10.1089/ham.2016.0042. 2016.
- Graziosi F, Arduini J, **Bonasoni P**, Furlani F, Giostra U, Manning AJ, McCulloch A, Simmonds PG, Reimann S, Vollmer MK et al.. 2016. Emissions of carbon tetrachloride from Europe. *Atmos. Chem. Phys.*, 16, 12849–12859, 2016
- Landi, T.C.; Stortini, M.; Bonafe, G.; Minguzzi, E.; Cristofanelli, P.; Rinaldi, M.; Gilardoni, S.; Decesari, S.; Ricciardelli, I.; Morigillo, A., GP Gobbi and **P. Bonasoni.** A comprehensive ctm assessment over an highly polluted area. Springer Int Publishing Ag: Cham, p 483-488, 2016.
- E. D. Sofen, D. Bowdalo, M. J. Evans, F. Apadula, P. **Bonasoni**, M. Cupeiro, R. Ellul, I. E. Galbally, R. Girgzdienne, S. Luppó, M. Mimouni, A. C. Nahas, M. Saliba, and K. Tørseth. Gridded global surface ozone metrics for atmospheric chemistry model evaluation. *Earth Syst. Sci. Data*, 8, 41-59, 2016.
- Duchi R, Cristofanelli P, Landi TC, Arduini J, Bonafe' U, **Bonasoni P.** et al. 2016. Long-term (2002–2012) investigation of Saharan dust transport events at Mt. Cimone GAW global station, Italy (2165 m a.s.l.). *Elem Sci Anth* 4: 000085. doi: 10.12952/journal.elementa.000085 2016.
- Cristofanelli P, Landi TC, Calzolari F, Duchi R, Marinoni A, Rinaldi M, **Bonasoni P.** Summer atmospheric composition over the Mediterranean basin: Investigation on transport processes and pollutant export to the free troposphere by observations at the WMO/GAW Mt. Cimone global station (Italy, 2165 m a.s.l.) . *Atmospheric Environment*. 141, Pages 139–152, 2016.

- Rosa Claudia Torcasio, Stefano Federico, Claudia Roberta Calidonna, Elenio Avolio, Oxana Drofa, Tony Christian Landi, Piero Malguzzi, Andrea Buzzi, and Paolo **Bonasoni**. Three-model ensemble wind prediction in southern Italy. *Annales Geophysicae*, 34, 347–356, 2016.
- Elena N. Kirillova, Angela Marinoni, Paolo **Bonasoni**, Elisa Vuillermoz, Maria Cristina Facchini, Sandro Fuzzi, Stefano Decesari. Light absorption properties of brown carbon in the high Himalayas. *JGR-A Volume 121*, Issue 16. Pages 9621–9639. 2016.
- Putero, D.; Cristofanelli, P.; Marinoni, A.; Adhikary, B.; Duchi, R.; Shrestha, S.D.; Verza, G.P.; Landi, T.C.; Calzolari, F.; Busetto, M., **P. Bonasoni**. Seasonal variation of ozone and black carbon observed at Paknajol, an urban site in the Kathmandu valley, Nepal. *Atmospheric Chemistry and Physics*, 15, 13957-13971, 2015
- Rinaldi M, Gilardoni S, Paglione M, Sandrini S, Fuzzi S, Massoli P, **Bonasoni P**, Cristofanelli P, Marinoni A, Poluzzi V et al. 2015. Organic aerosol evolution and transport observed at Mt. Cimone (2165 m a.s.l.), Italy, during the PEGASOS campaign. *Atmos. Chem. Phys.*, 15, 11327-11340, 2015.
- Brattich E, Riccio A, Tositti L, Cristofanelli P, **Bonasoni P**. An outstanding Saharan dust event at Mt. Cimone (2165 m a.s.l., Italy) in March 2004. *Atmospheric Environment Volume 113*, Pages 223–235, 2015.
- H.-W. Jacobi, S. Lim, M. Ménégoz, P. Ginot, P. Laj, **P. Bonasoni**, P. Stocchi, A. Marinoni and Y. Arnaud. Black carbon in snow in the upper Himalayan Khumbu Valley, Nepal: observations and modeling of the impact on snow albedo, melting, and radiative forcing. *Cryosphere* 9, 1685-1699, 2015.
- Graziosi, F.; Arduini, J.; Furlani, F.; Giostra, U.; Kuijpers, L.J.M.; Montzka, S.A.; Miller, B.R.; O'Doherty, S.J.; Stohl, A.; **Bonasoni, P.**, et al. European emissions of hcf-22 based on eleven years of high frequency atmospheric measurements and a bayesian inversion method. *Atmospheric Environment* 2015, 112, 196-207.
- Simone Orsenigo, Thomas Abeli, Graziano Rossi, Paolo **Bonasoni**, Cristian Pasquaretta, Maurizia Gandini, Andrea Mondoni. Effects of Autumn and Spring Heat Waves on Seed Germination of High Mountain Plants. *Plos One* 10 (7): e0133626. doi:10.1371/journal.pone.0133626. 2015.
- Cristofanelli, P., H.-E. Scheel, M. Steinbacher, M. Saliba, F. Azzopardi, R. Ellul, M. Fröhlich, L. Tositti, E. Brattich, M. Maione, F. Calzolari, R. Duchi, T.C. Landi, A. Marinoni, **P. Bonasoni**, "Long-term surface ozone variability at Mt. Cimone WMO/GAW global station (2165 m a.s.l., Italy)", *Atmospheric Environment*, vol. 101, pp. 23-33, 2015.
- Vuillermoz E., Senese A., Diolaiuti G, Smiraglia C, Cristofanelli P., Marinoni A., G.P. Verza and **Bonasoni P**. The Case Study of the Changri Nup Glacier (Nepal, Himalaya) to Understand Atmospheric Dynamics and Ongoing Cryosphere Variations. *Engineering Geology for Society and Territory*. Vol.1 2015.10.1007/978-3-319-09300-0\_14, pp 73-76. 2015.
- Putero D., Cristofanelli P., Laj P., Marinoni A, Villani P., Broquet A., Alborghetti M., Calzolari F, Duchi R, Landi TC, Verza GP, Vuillermoz E and **Bonasoni P**. New atmospheric composition observations in the Karakorum region: influence of local emissions and large-scale circulation during a summer field campaign. *Atmospheric Environment*. DOI 10.1016/j.atmosenv.2014.07.063. 2014.
- Sandrini, S., Giulianelli, L., Decesari, S., Fuzzi, S., Cristofanelli, P., Marinoni, A., **Bonasoni, P.**, Chiari, M., Calzolari F., Canepari, S., Perrino, C., Facchini, M.C. In situ physical and chemical characterisation of the Eyjafjallajökull aerosol plume in the free troposphere over Italy. *Atmospheric chemistry and physics*. 10.5194/acp-14-1075. 2014.
- Duchi, R.; Cristofanelli, P.; Marinoni, A.; Bourcier, L.; Laj, P.; Calzolari, F.; Adhikary, B.; Verza, G.P.; Vuillermoz, E.; **Bonasoni, P.** Synoptic-scale dust transport events in the southern himalaya. *Aeolian Research*, 13, 51-57, 2014.
- Sandrini, S.; Fuzzi, S.; Piazzalunga, A.; Prati, P.; **Bonasoni, P.**; Cavalli, F.; Bove, M.C.; Calvello, M.; Cappelletti, D.; Colombi, C., et al. Spatial and seasonal variability of carbonaceous aerosol across italy. *Atmospheric Environment*, 99, 587-598, 2014.

- Locci, F.; Melis, M.T.; Dessi, F.; Stocchi, P.; Akinde, M.O.; Bones, V.; **Bonasoni, P.**; Vuillermoz, E. Implementation of a webgis service platform for high mountain climate research: The share geonetwork project. *Geoscience Data Journal*, 1, 140-157, 2014.
- P. Ginot, M. Dumont, S. Lim, N. Patris, J.-D. Taupin, P. Wagnon, A. Gilbert, Y. Arnaud, A. Marinoni, **P. Bonasoni**, and P. Laj. A 10 year record of black carbon and dust from a Mera Peak ice core (Nepal): variability and potential impact on melting of Himalayan glaciers. *The Cryosphere*, 8, 1479-1496, doi:10.5194/tc-8, 1479-2014. 2014
- M. Maione, F. Graziosi, J. Arduini, F. Furlani, U. Giostra, D. R. Blake, **P. Bonasoni**, X. Fang, S. A. Montzka, S. J. O'Doherty, S. Reimann, A. Stohl, and M. K. Vollmer. Estimates of European emissions of methyl chloroform using a Bayesian inversion method, *Atmos. Chem. Phys.*, 14, 9755–9770, 2014. doi:10.5194/acp-14-9755-2014.
- C. Carbone, S. Decesari, M. Paglione, L. Giulianelli, M. Rinaldi, A. Marinoni, P. Cristofanelli, A. Didiodato, **P. Bonasoni**, S. Fuzzi, M. C. Facchini. 3-year chemical composition of free tropospheric PM1 at the Mt. Cimone GAW global station - South Europe - 2165 m a.s.l. *Atmospheric environment*. 10.1016/j.atmosenv. 2014.01.048. 2014.
- P. Cristofanelli, D. Putero, B. Adhikary, T.C. Landi, A. Marinoni, R. Duchi, F. Calzolari, P. Laj, P. Stocchi, G. Verza, E. Vuillermoz, S. Kang, J. Ming and **P. Bonasoni**. Transport of short-lived climate forcers/pollutants (SLCF/P) to the Himalayas during the South Asian summer monsoon onset. *Environ. Res. Lett.* 9. 084005. doi:10.1088/1748-9326/9/8/084005. 2014.
- D. Putero, T. C. Landi, P. Cristofanelli<sup>1</sup>, A. Marinoni, P. Laj, R. Duchi, B. Adhikary, F. Calzolari, E. Vuillermoz, and **P. Bonasoni**. Influence of open vegetation fires on black carbon and ozone variability in the southern Himalayas (NCO-P, 5079 m a.s.l.). *Environmental Pollution*. 184, 597-604.10.1016/j.envpol.2013.09.035. 2014.
- P. Cristofanelli, P. Di Carlo, A. D'Altorio, C. Dari Salisburgo, P. Tuccella, F. Biancofiore, P. Stocchi, G. P. Verza, T.C.Landi, A.Marinoni, F. Calzolari, R. Duchi, and **P. Bonasoni**. Analysis of Summer Ozone Observations at a High Mountain Site in Central Italy (Campo Imperatore, 2388 m a.s.l.). *Pure and applied geophysics* 10.1007/s00024-012-0630-1. 2013.
- Tositti L, Riccio A, Sandrini S, Brattich E, Baldacci D, Parmeggiani S, Cristofanelli P, **Bonasoni P**. Short-term climatology of PM10 at a high altitude background station in southern Europe. *Atmospheric Environment*, Volume 65, Pages 142–152 2013. 2013.
- Marinoni, P. Cristofanelli, P. Laj, R. Duchi, D. Putero, F. Calzolari, T. C. Landi, E. Vuillermoz, M. Maione, **P. Bonasoni**. High black carbon and ozone concentrations during pollution transport in the Himalayas: Five years of continuous observations at NCO-P global GAWstation. in *Journal of Environmental Sciences* 2010, 22(9) 1357-1363. 2013.
- Maione M, Giostra U, Arduini J, Furlani F, Graziosi F, Lo Vullo E, **Bonasoni P**. Ten years of continuous observations of stratospheric ozone depleting gases at Monte Cimone (Italy)-comments on the effectiveness of the Montreal Protocol from a regional perspective. *Sci. Total. Environ.* 155(64). 2013.
- Cristofanelli P, Fierli F, Marinoni A, Calzolari F, Duchi R, Burkhart J, Stohl A, Maione M, Arduini J, **Bonasoni P**. Influence of biomass burning and anthropogenic emissions on ozone, carbon monoxide and black carbon at the Mt. Cimone GAW-WMO global station (Italy, 2165 m). *Atmos. Chem. Phys.*, 10.5194/acp-13-15, 2013.
- T.J. Yasunari, Q.Tan, K.-M. Lau, **P. Bonasoni**, A. Marinoni, P.Laj, M.Mûnûgoz, T.Takemura, M.Chin. Estimated range of black carbon dry deposition and the related snow albedo reduction over Himalayan glaciers during dry pre-monsoon periods. *Atmospheric Environment* 78, 259-267, 2013.
- **P. Bonasoni**, P. Cristofanelli, A. Marinoni, E. Vuillermoz, B. Adhikary. Atmospheric Pollution in the Hindu Kush–Himalaya Region. *Mountain Research and Development*, 32(4):468-479. DOI: <http://dx.doi.org/10.1659/MRD-JOURNAL-D-12-00066.1>. 2012.
- Zauli-Sajani S, **P. Bonasoni**, Cristofanelli P, Marinoni A, Lauriola P. Only coarse particles from the Sahara? *Epidemiology*. DOI: 10.1097/EDE.0b013e318258c23f. 2012.

- Bracci, A.; Cristofanelli, P.; Sprenger, M.; Bonafe, U.; Calzolari, F.; Duchi, R.; Laj, P.; Marinoni, A.; Roccato, F.; Vuillermoz, E. and **P. Bonasoni**. Transport of stratospheric air masses to the nepal climate observatory-pyramid (himalaya; 5079 m msl): A synoptic-scale investigation. *Journal of Applied Meteorology and Climatology* 51, 1489-1507, 2012.
- K.Moore, J.Semple, P.Cristofanelli, **P.Bonasoni** and P.Stocchi. Environmental conditions at the South Col of Mount Everest and their impact on hypoxia and hypothermia experienced by mountaineers. *Extreme Physiology & Medicine*. 2012 1:2. doi: 10.1186/2046-7648-1-2. 2012.
- E. Andrews, J.A. Ogren, P. **Bonasoni**, A. Marinoni, E. Cuevas, S. Rodriguez, J.Y. Sun, D.A. Jaffe, E.V. Fischer, U. Baltensperger, E. Weingartner, et al. Climatology of aerosol radiative properties in the free troposphere *Climatology of aerosol radiative properties in the free troposphere, Atmospheric Research, Volume 102, Issue 4, 365-393. 2011.*
- Cristofanelli, P.; Calzolari, F.; Bonafe, U.; Lanconelli, C.; Lupi, A.; Busetto, M.; Vitale, V.; Colombo, T.; **Bonasoni, P.** Five-year analysis of background carbon dioxide and ozone variations during summer seasons at the mario zuchelli station (antarctica). *Tellus Series B-Chemical and Physical Meteorology*, 63, 831-842, 2011.
- Reddington, C.L.; Carslaw, K.S.; Spracklen, D.V.; Frontoso, M.G.; Collins, L.; Merikanto, J.; Minikin, A.; Hamburger, T.; Coe, H.; Kulmala, M., A. Marinoni, **P. Bonasoni**, R. Duchi et al. Primary versus secondary contributions to particle number concentrations in the european boundary layer. *Atmospheric Chemistry and Physics*, 11, 12007-12036, 2011.
- Lentini, G.; Cristofanelli, P.; Duchi, R.; Marinoni, A.; Verza, G.; Vuillermoz, E.; Toffolon, R.; **Bonasoni, P.** Mount rwenzori (4750 m asl, uganda): Meteorological characterization and air-mass transport analysis. *Geografia Fisica E Dinamica Quaternaria*, 34, 183-193, 2011.
- Maione, M.; Giostra, U.; Arduini, J.; Furlani, F.; **Bonasoni, P.**; Cristofanelli, P.; Laj, P.; Vuillermoz, E. Three-year observations of halocarbons at the nepal climate observatory at pyramid (nco-p, 5079 m a.S.L.) on the himalayan range. *Atmospheric Chemistry and Physics*, 11, 3431-3441, 2011.
- Sajani ZS, Miglio R, **Bonasoni P**, Cristofanelli P, Marinoni A, Sartini C, Goldoni CA, Girolamo DG, Lauriola P. Saharan dust and daily mortality in Emilia-Romagna (Italy). *Occupational and Environmental Medicine*, 68, 446-451. DOI: 10.1136/oem.2010.058156. 2011.
- **P. Bonasoni**, P. Laj, A. Marinoni, M. Sprenger, F. Angelini, J. Arduini, U. Bonafè, F. Calzolari, T. Colombo, S. Decesari, C. Di Biagio, A. G. di Sarra, et al.. *Atmospheric Brown Clouds in the Himalayas: first two years of continuous observations at the Nepal Climate Observatory-Pyramid (5079 m)*. *Atmos. Chem. Phys.*, 10, 7515-7531, 2010.
- S. T. J. Yasunari, P. **Bonasoni**, P. Laj, K. Fujita, E. Vuillermoz, A. Marinoni, P. Cristofanelli, R. Duchi, G. Tartari, and K.-M. Lau. Estimated impact of black carbon deposition during pre-monsoon season from Nepal Climate Observatory – Pyramid data and snow albedo changes over Himalayan glaciers. *Atmos. Chem. Phys.*, 10, 6603-6615, 2010.
- P. Cristofanelli, A. Bracci, M. Sprenger, A. Marinoni, U. Bonafè, F. Calzolari, R. Duchi, P. Laj, J.M. Pichon, F. Roccato, H. Venzac, E. Vuillermoz, and P. **Bonasoni**. Tropospheric ozone variations at the Nepal Climate Observatory-Pyramid (Himalayas, 5079 m a.s.l.) and influence of deep stratospheric intrusion events. *Atmos. Chem. Phys.*, 10, 6537-6549, 2010.
- J.Ming, C.Xiao, J. Sun, S. Kang, P. **Bonasoni**. Carbonaceous particles in the atmosphere and precipitation of the Nam Co region, central Tibet. *J. Environ. Sci.-CHINA*, 22(11), 1748-1756.2010
- S. Marcq, P. Laj, J. C. Roger, P. Villani, K. Sellegri, P. **Bonasoni**, A. Marinoni, P. Cristofanelli, G. P. Verza, and M. Bergin. Aerosol optical properties and radiative forcing in the high Himalaya based on measurements at the Nepal Climate Observatory-Pyramid site (5079 m a.s.l.). *Atmos. Chem. Phys.*, 10, 5859-5872, 2010.
- Decesari, M. C. Facchini, C. Carbone, L. Giulianelli, M. Rinaldi, E. Finessi, S. Fuzzi, A. Marinoni, P. Cristofanelli, R. Duchi, P. **Bonasoni**, E. Vuillermoz, J. Cozic, J. L. Jaffrezo, and P. Laj. Chemical composition of PM10 and PM1 at the high-altitude Himalayan station Nepal Climate Observatory-Pyramid (NCO-P) (5079 m a.s.l.). *Atmos. Chem. Phys.*, 10, 4583-4596, 2010.

- A. Marinoni, P. Cristofanelli, P. Laj, R. Duchi, F. Calzolari, S. Decesari, K. Sellegri, E. Vuillermoz, G.P. Verza, P. Villani, and P. **Bonasoni**. Aerosol mass and black carbon concentrations, a two year record at NCO-P (5079 m, Southern Himalayas). *Atmos.Chem.Phys.*, 10,8551-8562, 2010
- Petkov, Boyan; Tomasi, Claudio; Vitale, Vito; di Sarra, Alcide; **Bonasoni, Paolo**; Lanconelli, Christian; Benedetti, Elena; Sferlazzo, Damiano; Diémoz, Henri; Agnesod, Giovanni; Santaguida, Riccardo. Ground-based observations of solar radiation at three Italian sites, during the eclipse of 29 March, 2006: Signs of the environment impact on incoming global irradiance. *Atmospheric Research*, v. 96, iss. 1, p. 131-140.
- G. P. Gobbi, F. Angelini, **P. Bonasoni**, G. P. Verza, A. Marinoni, and F. Barnaba. Sunphotometry of the 2006–2007 aerosol optical/radiative properties at the Himalayan Nepal Climate Observatory – Pyramid (5079 m a.s.l.). *Atmos. Chem. Phys. Discuss.*, 10, 1193-1220, 2010.
- K. Sellegri, P. Laj, H. Venzac, J. Boulon, D. Picard, P. Villani, **P. Bonasoni**, A. Marinoni, P. Cristofanelli, and E. Vuillermoz Seasonal variations of aerosol size distributions based on long-term measurements at the high altitude Himalayan site of Nepal Climate Observatory-Pyramid (5079 m), Nepal *Atmos. Chem. Phys.*, 10, 10679-10690, 2010.
- Cristofanelli P., A. Marinoni, J. Arduini, P. Bonafè, T. Colombo, S. Decesari, F. Calzolari, R. Duchi, M.C. Facchini, F. Fierli, E. Finessi, M. Maione, M. Chiari, G. Calzolari, P. Messina, E. Orlandi, F. Roccato and **P. Bonasoni**. Significant variations of trace gas composition and aerosol properties at Mt. Cimone during air mass transport from North Africa - contributions from wildfire emissions and mineral dust *Atmos. Chem. Phys.*, 9, 14. 4603-4619, 2009
- Laj P, **Bonasoni P.**, Roger JC., Sellegri K., Venzac H., Villani P., Calzolari F., Cristofanelli P., Marinoni A., Vuillermoz E. Aerosol radiative forcing estimated from in situ measurements at the NCO-P station (5100m, Nepal) *GEOCHIMICA ET COSMOCHIMICA ACTA*, 73, 13, A715-A715. 2009.
- Cristofanelli P., **P. Bonasoni**, U. BONAFA', F. CALZOLARI, R. DUCHI, A. MARINONI, F.ROCCATO, E.VUILLERMOZ and M. SPRENGER. Influence of lower stratosphere/upper troposphere transport events on surface ozone at the Everest-Pyramid GAW Station (Nepal): first year of analysis *INTERNATIONAL JOURNAL OF REMOTE SENSING* Volume: 30 Issue: 15-16 Pages: 4083-4097, 2009
- Cristofanelli P., F. Calzolari, U. Bonafè, R. Duchi, A. Marinoni, F. Roccato, L. Tositti, **P. Bonasoni**. Stratospheric intrusion index (SI2) from baseline measurement data. *Theoretical and Applied Climatology*, 97, 3-4, 317-325. 2009
- Cristofanelli P., **Bonasoni P.** Background ozone in the southern Europe and Mediterranean area: Influence of the transport processes *ENVIRONMENTAL POLLUTION* Volume: 157 Issue: 5 Pages: 1399-1406 Published: 2009.
- Venzac H., K. Sellegri, P. Laj, P.Villani, **P.Bonasoni**, A.Marinoni, P.Cristofanelli, F. Calzolari, S. Fuzzi, S.Decesari, M.C.Facchini, E.Vuillermoz, G.P.Verza. High frequency new particle formation in the Himalayas *PNAS - PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA* Volume: 105 Issue: 41 Pages: 15666-15671 Published: 2008
- Cristofanelli P., **P. Bonasoni**, F. Calzolari, U. BONAFA', C. LANCONELLI, A. LUPI, G. TRIVELLONE, V. VITALE and B. PETKOV Analysis of near-surface ozone variations in Terra Nova Bay, Antarctica *ANTARCTIC SCIENCE* Volume: 20 Issue: 4 Pages: 415-421 Published: 2008
- **Bonasoni, P.**; P. Laj, U. Bonafè, F. Calzolari, P. Cristofanelli, S. Decesari, L.Emblico, MC. Facchini, S. Fuzzi, GP. Gobbi, A. Marinoni, F. Roccato, JM. Pichon, K. Sellegri, H. Venzac, P. Villani, J. Arduini, M. Maione, A. Petzold, M. Sprenger, G. Tartari, GP. Verza and E. Vuillermoz. The ABC-Pyramid Atmospheric Research Observatory in Himalaya for aerosol, ozone and halocarbon measurements. *SCIENCE OF THE TOTAL ENVIRONMENT* Volume: 391 Issue: 2-3 Pages: 252-261 Published: 2008
- Marinoni, A.; Cristofanelli, P.; Calzolari, F.; Roccato, F.; Bonafè, U.; **Bonasoni, P.** Continuous measurements of aerosol physical parameters at the Mt. Cimone GAW Station (2165 m asl, Italy) Continuous measurements of aerosol physical parameters at the Mt. Cimone GAW Station (2165 m

asl, Italy). SCIENCE OF THE TOTAL ENVIRONMENT Volume: 391 Issue: 2-3 Pages: 241-251. Published: 2008

- Colombo T., V. Pelino, S. Vergari, P. Cristofanelli, **P. Bonasoni**. Study of temperature and precipitation variations in Italy based on surface instrumental observations GLOBAL AND PLANETARY CHANGE Volume: 57 Issue: 3-4 Pages: 308-318 Published: 2007
- Cristofanelli P., **P. Bonasoni**, G. Carboni, F. Calzolari, L. Casarola, S. Zauli Sajani, R. Santaguida. Anomalous high ozone concentrations recorded at a high mountain station in Italy in summer 2003 ATMOSPHERIC ENVIRONMENT Volume: 41 Pages: 1383-1394 Published: 2007
- Lee H. N., L. Tositti, X. D. Zheng, **P. Bonasoni**. Analyses and comparisons of variations of Be-7, Pb-210, and Be-7/Pb-210 with ozone observations at two Global Atmosphere Watch stations from high mountains JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES Volume: 112 Issue: D5 Article Number: D05303 Published: MAR 8 2007
- Marenco F., **Bonasoni P.**, Calzolari F., Ceriani M., Chiari M., Cristofanelli P., D'Alessandro A., Fermo P., Lucarelli F., Mazzei F., Nava S., Piazzalunga A., Prati P., Valli G., and R. Vecchi. Characterization of atmospheric aerosols at Monte Cimone, Italy, during summer 2004: Source apportionment and transport mechanisms JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES Volume: 111 Issue: D24 Article Number: D24202 Published: DEC 16 2006
- Cristofanelli, P., **P. Bonasoni**, L. Tositti, U. Bonafè, F. Calzolari, F. Evangelisti, S. Sandrini, and A. Stohl. A 6-year analysis of stratospheric intrusions and their influence on ozone at Mt. Cimone (2165 m above sea level) JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES Volume: 111 Issue: D13 Article Number: D03306 Published: FEB 15 2006
- Campana, M., Li, Y., Staehelin, J., Prévôt, A.S.H., **Bonasoni, P.**, Loetscher H.P., and Peter, Th.. The influence of south foehn on the ozone mixing ratios at the high alpine site Arosa ATMOSPHERIC ENVIRONMENT Volume: 39 Issue: 16 Pages: 2945-2955 Published: MAY 2005.
- Beine H. J., A. Amoroso, G. Esposito, R. Sparapani, A. Ianniello, T. Georgiadis, M. Nardino, **P. Bonasoni**, P. Cristofanelli, and F. Dominè. Deposition of atmospheric nitrous acid on alkaline snow surfaces GEOPHYSICAL RESEARCH LETTERS Volume: 32 Issue: 10 Article Number: L10808 Published: MAY 20 2005
- Petritoli, A; **Bonasoni, P**; Giovanelli, G, et al. First comparison between ground-based and satellite-borne measurements of tropospheric nitrogen dioxide in the Po basin. JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES Volume: 109 Issue: D15 Article Number: D15307 Published: AUG 7 2004
- **Bonasoni, P**; Cristofanelli, P; Calzolari, F, et al. Aerosol-ozone correlations during dust transport episodes ATMOSPHERIC CHEMISTRY AND PHYSICS Volume: 4 Pages: 1201-1215 Published: AUG 3 2004
- Fischer, H; Kormann, R; Klupfel, T, **Bonasoni, P**, et al. Ozone production and trace gas correlations during the June 2000 MINATROC intensive measurement campaign at Mt. Cimone ATMOSPHERIC CHEMISTRY AND PHYSICS Volume: 3 Pages: 725-738 Published: JUN 16 2003
- Stohl, A; **Bonasoni, P**; Cristofanelli, P, et al. Stratosphere-troposphere exchange: A review, and what we have learned from STACCATO JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES Volume: 108 Issue: D12 Article Number: 8516 Published: MAY 10 2003
- Cristofanelli, P; **Bonasoni, P**; Collins, W, et al. Stratosphere-to-troposphere transport: A model and method evaluation JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES Volume: 108 Issue: D12 Article Number: 8525 Published: MAR 13 2003
- Y. Balkanski, S. E. Bauer, R. van Dingenen, **P. Bonasoni**, M. Schulz, H. Fischer, G. P. Gobbi, M. Hanke, D. Hauglustaine, J. P. Putaud, A. Stohl, and F. Raes The Mt Cimone, Italy, free tropospheric campaign: principal characteristics of the gaseous and aerosol composition from European pollution, Mediterranean influences and during African dust events. ACPD Atmospheric chemistry and physics discussion ISSN: 1680-7375, DOI: 10.5194/acpd-3-1753-2003.



- Petritoli, A; Giovanelli, G; Kostadinov, I, **Bonasoni, P**; et al. Tropospheric and stratospheric NO<sub>2</sub> amount deduced by slant column measurements at Mt. Cimone Station. *Advances in Space Research*. Volume: 29 Issue: 11 Pages: 1691-1695 Published: 2002
- Maione, M; Mangani, F; Lattanzi, L, **Bonasoni, P**; et al. Measurements of chlorofluorocarbons and their replacement compounds at Monte Cimone: Results obtained after eighteen months of observations *ANNALI DI CHIMICA* Volume: 92 Issue: 4 Pages: 443-449 Published: 2002
- **Bonasoni, P**; Evangelisti, F; Bonafe, U, et al. Stratospheric ozone intrusion episodes recorded at Mt. Cimone during the VOTALP project: case studies *ATMOSPHERIC ENVIRONMENT* Volume: 34 Issue: 9 Pages: 1355-1365 Published: 2000
- **Bonasoni, P**; Stohl, A; Cristofanelli, P, et al. Background ozone variations at Mt. Cimone Station *ATMOSPHERIC ENVIRONMENT* Volume: 34 Issue: 29-30 Pages: 5183-5189 Published: 2000
- Colombo, T; Santaguida, R; Capasso, A, **Bonasoni, P**; et al. Biospheric influence on carbon dioxide measurements in Italy *ATMOSPHERIC ENVIRONMENT* Volume: 34 Issue: 29-30 Pages: 4963-4969 Published: 2000
- Stohl, A; Spichtinger-Rakowsky, N; **Bonasoni, P**, et al. The influence of stratospheric intrusions on alpine ozone concentrations *ATMOSPHERIC ENVIRONMENT* Volume: 34 Issue: 9 Pages: 1323-1354 Published: 2000
- Lenaz, R; Giovanelli, G; Ori, C, **Bonasoni, P**, et al. Ship-board report on atmospheric CO<sub>2</sub> concentrations recorded on continuous from Mediterranean Sea to Antarctica *NUOVO CIMENTO DELLA SOCIETA ITALIANA DI FISICA C-GEOPHYSICS AND SPACE PHYSICS* Volume: 23 Issue: 5 Pages: 507-514 Published: SEP-OCT 2000
- **Bonasoni, P**; Evangelisti, F; Bonafe, U, et al. Stratosphere-troposphere exchanges: case studies recorded at Mt. Cimone during VOTALP project *PHYSICS AND CHEMISTRY OF THE EARTH PART C-SOLAR-TERRESTIAL AND PLANETARY SCIENCE* Volume: 24 Issue: 5 Pages: 443-446 Published: 1999
- **Bonasoni, P.**; Evangelisti, F., Giovanelli, Giorgio, et al. Mt. Cimone observatory: Baseline station for the measurement of gaseous substances and radioactive tracers in the atmosphere *Journal of Environmental Pathology Toxicology and Oncology* Volume: 16 Issue: 2-3 Pages: 239-244 Published: 1997
- Bettoli, MG; **Bonasoni, P**; Calzolari, F, Bonasoni, P et al. Determination of atmospheric radionuclides at Mt. Cimone observatory *ANNALI DI CHIMICA* Volume: 87 Issue: 11-12 Pages: 765-770 Published: 1997
- Evangelisti, F; **Bonasoni, P**; Giovanelli, G Intercomparison of UV/visible spectrometers for measurements of stratospheric NO<sub>2</sub> for the network for the detection of stratospheric change - Comment *JOURNAL OF GEOPHYSICAL RESEARCH-ATMOS.* Volume: 102 Issue: D19 Pages: 23583-23585 Published: Oct 20 1997
- **Bonasoni, P**; Calzolari, F; Colombo, T, et al. Continuous CO and H<sub>2</sub> measurements at Mt Cimone (Italy): Preliminary results *ATMOSPHERIC ENVIRONMENT* Volume: 31 Issue: 7 Pages: 959-967 Published: APR 1997.
- Hofmann, D; **Bonasoni, P**; Demaziere, M, et al. Intercomparison of UV Visible Spectrometers for Measurements of Stratospheric NO<sub>2</sub> for the Network for the Detection of Stratospheric Change *JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES* Volume: 100 Issue: D8 Pages: 16765-16791 Published: AUG 20 1995
- Fortezza, F; Georgiadis, T; Alberti, L, **Bonasoni, P**, et al. A Numerical-Simulation of the Transport of Surface Ozone Along a Mediterranean Coastal Area *NUOVO CIMENTO DELLA SOCIETA ITALIANA DI FISICA C-GEOPHYSICS AND SPACE PHYSICS* Volume: 18 Issue: 4 Pages: 403-410 Published: JUL-AUG 1995
- Evangelisti, F; Baroncelli, A; **Bonasoni, P**, et al. Differential Optical-Absorption Spectrometer for Measurement of Tropospheric Pollutants *APPLIED OPTICS* Volume: 34 Issue: 15 Pages: 2737-2744 Published: MAY 20 1995

- Fortezza, F; Strocchi, V; Giovanelli, G, **Bonasoni, P**, et al. Transport of Photochemical Oxidants Along the Northwestern Adriatic Coast ATMOSPHERIC ENVIRONMENT PART A-GENERAL TOPICS Volume: 27 Issue: 15 Pages: 2393-2402 Published: OCT 1993
  - Fortezza, F; Strocchi, V; **Bonasoni, P**, et al. Time Space Model of Summer Ozone distribution around Ravenna JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES Volume: 98 Issue: D6 Pages: 10615-10620 Published: JUN 20 1993
  - Georgiadis, T; Strocchi,, V; Fortezza, F; **Bonasoni, P**, et al. Removal of Sulfur-Dioxide and Sulfates from the Atmospheric Surface –Layer During Frost Formation WATER AIR AND SOIL POLLUTION Volume: 66 Issue: 3-4 Pages: 267-276 Published: FEB 1993
  - Georgiadis, T; Giovanelli, G; **Bonasoni, P**. Ozone Countergradients Over Wheat. NUOVO CIMENTO DELLA SOCIETA ITALIANA DI FISICA C-GEOPHYSICS AND SPACE PHYSICS Volume: 15 Issue: 1 Pages: 115-117 Published: JAN-FEB 1992
  - Giovanelli, G; **Bonasoni, P**; GUERRINI, A, et al. Measurements of Climatic parameters and Ground Level Ozone at Terra Nova Bay in Antarctica. NUOVO CIMENTO DELLA SOCIETA ITALIANA DI FISICA C-GEOPHYSICS AND SPACE PHYSICS Volume: 14 Issue: 1 Pages: 1-13 Published: JAN-FEB 1991.
  - Anfossi, D; Cassandro, C; Giraud, C, Giovanelli, G; **Bonasoni, P**.et al. Experimental-Study of Transalpine Transport of Trace Effluents - A Comparison with Synoptic Trajectories of Air-Flow. NUOVO CIMENTO DELLA SOCIETA ITALIANA DI FISICA C-GEOPHYSICS AND SPACE PHYSICS Volume: 11 Issue: 5-6 Pages: 489-526 Published: SEP-DEC 1988.
  - Giovanelli, G; **Bonasoni, P**; Loglio, G, et al. Evidence of anionic-Surfactant Enrichment in Marine Aerosol MARINE POLLUTION BULLETIN Volume: 19 Issue: 6 Pages: 274-277 Published: JUN 1988.
  - S.Fuzzi and **P.Bonasoni**. The Atmospheric Brown Cloud in the Himalayas. Fate of Mountain Glaciers in the Anthropocene Pontifical Academy of Sciences, Scripta Varia 118, 2013. [www.pas.va/content/dam/accademia/pdf/sv118/sv118-fuzzi-bonasoni.pdf](http://www.pas.va/content/dam/accademia/pdf/sv118/sv118-fuzzi-bonasoni.pdf).
- 
- Cristofanelli, P., Brattich, E., Decesari, S., Landi, T.C., Maione, M., Putero, D., Tositti, L., **Bonasoni, P**. High-Mountain Atmospheric Research The Italian Mt. Cimone WMO/GAW Global Station (2165 m a.s.l.). SpringerBriefs in Meteorology. VII, 135. Springer International Publishing. DOI 10.1007/978-3-319-61127-3. 2018.
  - Ramanathan V., M. Agrawal, M. Auffhammer, H. Akimoto, **P. Bonasoni**, G. Carmichael, L. Emberson, Y. Feng, S. Fuzzi, M. Iyengararasan, A. Jayaraman, M. Lawrence, T. Nakajima, T. Panwar, M.V. Ramana, J. Vincent, S.-C. Yoon, Y.-H. Zhang and A. Zhu. Atmospheric Brown Clouds - Regional Climate Change and Agriculture Impacts. First Assessment Report. Contribution of ABC Science Team and Agriculture Impact Study Group. Atmospheric Brown Clouds Project. The United Nations Environmental Program. pp.3-122, 2008.
  - **Bonasoni P.**, P. Laj, U. Bonafè, F. Calzolari, P. Cristofanelli, A. Marinoni, F. Roccato, M.C. Facchini, S. Fuzzi, G. P. Gobbi, J.-M. Pichon, H. Venzac, K. Sellegri, P. Villani, M. Maione, J. Arduini, A. Petzold, M. Sprenger, G.P. Verza and E. Vuillermoz. The ABC-Pyramid: a scientific laboratory at 5079 m a.s.l. for the study of atmospheric composition change and climate. In: Mountains Witnesses of Global Change; Developments in Earth Surface Processes, Vol. 10, Elsevier, 2007.
  - Gobbi G. P., F. Angelini, F. Barnaba and **P. Bonasoni**. The Ev-K2-CNR Pyramid and the AERONET network (Himalayan atmospheric brown cloud characterisation via sunphotometer observations). Chapter 11 - Developments in Earth Surface Processes, Volume 10; Mountains, Witnesses of Global Changes - Research in the Himalaya and Karakoram, edited by R. Baudo, G. Tartari and E. Vuillermoz, 2006.