1. PERSONAL DATA

Daniele Bortoli, ***Researcher***, Italian, born in March 7, 1968
Institution: Geophysics Centre of Evora, ECT/IIFA, University of Evora, 7000-671, Portugal ***Phone:*** +351 266 745 309; ***Fax:*** +351 266 745 394; ***E-mail:*** db@uevora.pt

2. ACADEMIC DEGREES

2005, PhD (Atmospheric Physics), University of Evora, Portugal
1998, Graduation (Physics), ALMA MATER STUDIORUM, University of Bologna, Italy

3. CURRENT SCIENTIFIC AND/OR PROFESSIONAL ACTIVITIES

Since November 2013 - Associate researcher at the University of Evora, Geophysics Centre of Evora in the frame of the program "Investigador FCT 2012"
Since September 2013 - MC Member [ES1303 PT] to COST Action ES1303
Since January 2007 – Non-stipendiary invited research fellow at the Institute for Atmospheric Sciences and Climate - National Council for the Researches (ISAC-CNR), Bologna - Italy.
Since January 2011 - Member of the Coordination Committee of the Portuguese Polar Program - PROPOLAR

4. ACADEMIC HISTORY AND PROFESSIONAL ACTIVITIES

Since his graduation DB accepted the supervision of 3 PhDs (ongoing) and 3 Post-Docs. In addition he supervised 11 fellowships, undergrad. and Master in physics and in environmental sciences and completed the supervision of 2 Post-Docs, a PhD is envisaged soon.
He was/is involved in 29 national and international funded projects (5 as PI; 7 as WP responsible). DB took part in 10 field campaigns, including 6 Italian Antarctic Expeditions, the last in November 2014.

November 2008/ October 2013 - Invited Researcher at the University of Evora, Geophysics Centre of Evora in the frame of the program "Ciência 2007"
March 2006 – October 2008,, Pos-DOC fellowship at the Geophysics Centre of the University of Evora (CGE-UE) (Portugal)
January 2004 – December 2006, ISAC-CNR Bologna, Italy - Research assignment for: "Processing and analysis of spectral data obtained with round based spectrometers at the Italian Antarctic Station and at the Observatory of the University of Evora".
March 2005- February 2006 , CGE – University of Evora, Portugal - Fellowship in the frame of "Cloud properties retrievals from ENVISAT in the presence of aerosol events over Portugal".
January 2003 – December 2003 – ISAC-CNR/CGE-UE - Development and setup of the SPATRAM (SPectrometer for Atmospheric TRAcers Measurements) to be installed at the University of Evora.
March 2001- February 2005 , CGE – University of Evora, Portugal - PhD fellowship for the setup of "SPATRAM – Spectrometer for ATmospheric TRAcers Measurements, a Prototype Equipment for the monitoring of minor compounds of the atmosphere".
January 2000 – December 2002 – ISAC-CNR/CGE-UE, Development and setup of the LIS spectrometer
Septemer 2000 – February 2001, ISAO-CNR Bologna, Italy - Contract in the frame: "Studies of atmospheric trace gases by means of DOAS tecniques, during the APE-GAIA Measurement Campaign".
February – June 1999 – ISAC-CNR, Bologna, Modification of the hardware and software of the spectrometer GASCOD/A4p, preparing it for the measurement campaign APE – GAIA (Airborne Platform for Earth observation – Geophysica Aircraft in Antarctica) programmed to September – October 1999, at Ushuaia (Argentina, 54°48' S, 68°19' W – Great Island of Tierra del Fuego, Beagle Channel).
September 1997 – November 1998 - FISBAT-CNR, Bologna. Implementation of the software tools for the data Acquisition of the spectrometer GASCOD/A4p, utilized in the measurement campaign APE-THESEO (Airborne Platform for Earth observation – Third European Stratospheric Experiment on Ozone).
January – August 1997 - FISBAT-CNR, Bologna. Study of the physical principles and mathematical methods of the Differential Optical Absorption Spectroscopy (DOAS) and software implementation for the elaboration of data obtained with GASCOD/A spectrometer
June – December 1996 - FISBAT-CNR, Contribution for the implementation of a software for the acquisition of data from the spectrometer (GASCOD/A), used during the measurement campaign APE1 (Airborne Polar Experiment), supported by the Italian PNRA (National Project of Research in Antartide), Rovaniemi, Finland, December 1996 – January 1997.
September 1998 – August 2000, FISBAT-CNR Bologna, Itália, Fellowship in the frame: "Differential Optical Absorption Spectroscopy (DOAS) applied to the analysis of total column of trace gases from measurements of solar radiation obtained with airborne equipment".
January – May 1996 ENEA (Ente nazionale per le Nuove tecnologie, l'Energia e l'Ambiente), Bologna (Italy): Study of the physical principles and mathematical methods of Quantum physics and sub nuclear particles: Research on the validation of the Top-Quark discovery.

5. PRESENT RESEARCH INTERESTS

Differential Optical Absorption Spectroscopy (DOAS); Remote Sensing with ground based; satellite or aircraft borne equipments; Radiative transfer in the Atmosphere; Atmospheric Process of Ozone depletion; Physics and Photochemical process of NO2 BrO, OClO, SO2; Air quality in urban and rural areas; Climate change and Global warming; Optic and optical instrumentation

6. PUBLICATIONS

He published more than 150 articles, of these, 74 indexed in Scopus database with 316 citations and h-index=10. Of the 74 articles, 37 are published in peer review international journals and 34 in reviewed conference proceedings.

MOST RELEVANT PUBLICATIONS

(JCR)

1. Obregón, M.A., Pereira, S., Salgueiro, V., Costa, M.J., Silva, A.M., Serrano, A., Bortoli, D., Aerosol radiative effects during two desert dust events in August 2012 over the southwestern Iberian Peninsula, (2015) Atmospheric Research, 153, pp. 404-415, http://dx.doi.org/10.1016/j.atmosres.2014.10.007 (***I.F.: 2.421***)
2. Salgueiro, V; Costa, MJ; Silva, AM; Bortoli, D, Variability of the Daily-Mean Shortwave Cloud Radiative Forcing at the Surface at a Midlatitude Site in Southwestern Europe, Journal of Climate, 27, 20, pp.7769-7780, 2014, ISSN: 0894-8755. *http://dx.doi.org/10.1175/JCLI-D-13-00696.1*(***I.F.: 4.904***)
3. Masieri, S., E. Palazzi, F. Ravegnani, **D. Bortoli**, A. Petritoli, M. Premuda, I. Kostadinov, E. Pisoni, C. Carnevale, M. Volta, G. Giovanelli, Vertical distribution of lower tropospheric NO2 derived from diffuse solar radiation measurements: a geometrical retrieval approach, IEEE Transactions on Geoscience and Remote Sensing, 52-8, 4846-4857, 2014, ISSN: 0196-2892. *http://dx.doi.org/10.1109/TGRS.2013.2285282*(***I.F.: 3.467***)
4. Potes M., M.J. Costa, R. Salgado, **D. Bortoli**, A. Serafim and P. Le Moigne, Spectral measurements of underwater downwelling radiance of inland water bodies, Tellus A, 2013, 65, 20774, http://dx.doi.org/10.3402/tellusa.v65i0.20774(***I.F.: 2.736***)
5. Premuda, M., A. Petritoli, S. Masieri, E. Palazzi, I. Kostadinov, **D. Bortoli**, F. Ravegnani, G. Giovanelli, A study of O3 and NO2 vertical structure in a coastal wooded zone near a metropolitan area, by means of DOAS measurements, Atmospheric Environment 03/2013; 71:104-114, 2013., ISSN: 13522310, http://dx.doi.org/10.1016/j.atmosenv.2013.01.050. . (***I.F.: 3.139***)
6. Kulkarni, P. S., **D. Bortoli**, A. M. Silva, Nocturnal surface ozone enhancement and trend over urban and suburban sites in Portugal Atmospheric Environment. 01/2013; 71:251-259, 2013, ISSN: 13522310, http://dx.doi.org/10.1016/j.atmosenv.2013.01.051. ***I.F.: 3.139***)
7. Premuda, M., E. Palazzi, F. Ravegnani, **D. Bortoli**, S. Masieri, G. Giovanelli, MOCRA: a Monte Carlo Code for the simulationof Radiative Transfer in the atmosphere, Optics Express, 20, 7, pp. 7973–7993, 2012 http://dx.doi.org/10.1364/OE.20.007973 (***I.F.: 3.139***)
8. Anton, M., **D. Bortoli**, P.S. Kulkarni, M.J. Costa, A.F. Domingues, D. Loyola, A.M. Silva, L. Alados-Arboleda, Long-term trends of total ozone column over the Iberian Peninsula for the period 1979-2008, *Atmosph Env*, 45, 6283-6290, 2011. http://dx.doi.org/10.1016/j.atmosenv.2011.08.058. (***I.F.: 3.139***).
9. Premuda, M., S. Masieri, **D. Bortoli,** I. Kostadinov, , A. Petritoli, and G. Giovanelli, Evaluation of vessel emissions in a lagoon area with ground based Multi axis DOAS measurements, *Atmosph Env*, 45, 5212-5219, 2011, http://dx.doi.org/10.1016/j.atmosenv.2011.05.067. (***I.F.: 3.139***).
10. Ghude Sachin D., Santosh H. Kulkarni, Pavan S. Kulkarni, Vijay P. Kanawade, Suvarna Fadnavis, Samir Pokhrel, Chinmay Jena, G. Beig, **D. Bortoli**, Anomalous low tropospheric column ozone over Eastern India during the severe drought event of monsoon 2002: a case study, Environ Sci Pollut Res, 18, 1442-1455, 2011. http://dx.doi.org/10.1007/s11356-011-0506-4 (***I.F.: 2.411***)
11. Kulkarni, P. S., **D. Bortoli**, R. Salgado, M. Antón, M. J. Costa and A. M. Silva, Reply to Discussion of "Tropospheric ozone variability over the Iberian Peninsula Atmospheric Environment" by Kulkarni et al. (2011), *Atmospheric Environment*, 45,15, 2600–2602, 2011 http://dx.doi.org/10.1016/j.atmosenv.2011.02.046 (***I.F.: 3.139***)
12. Santos D., M.J. Costa, A.M. Silva, R. Salgado, A. Domingues, **D. Bortoli**, Saharan desert dust radiative effects: a study based on atmospheric modelling, *International Journal of Global Warming (IJGW)*, 3, 1/2, 88-102, 2011. *http://dx.doi.org/10.1504/IJGW.2011.038372* (***I.F.: 0.770***)
13. Kostadinov, I., A.Petritoli, G.Giovanelli, M. Premuda, **D.Bortoli**, S.Masieri, F.Ravegnani, Stratospheric NO_2 trends over the high mountain "Ottavio Vittori" station, Italy, *International Journal of Remote Sensing*, 32: 3, 767 - 785, 2011 http://dx.doi.org/10.1080/01431161.2010.517799 (***I.F.: 1.089***).
14. Antón M., **D. Bortoli,** M.J. Costa, P.S. Kulkarni, A.F. Domingues, D. Barriopedro, A. Serrano and A.M. Silva, TEMPORAL AND SPATIAL VARIABILITY OF TOTAL OZONE COLUMN OVER PORTUGAL, *Remote Sensing of Environment*, *115*, *855-863*, 2011 http://dx.doi.org/10.1016/j.rse.2010.11.013 (***I.F.: 3.612***)
15. Kulkarni, P. S., **D. Bortoli**, R. Salgado, M. Antón, M. J. Costa and A. M. Silva, Tropospheric ozone variability over the Iberian Peninsula, *Atmospheric Environment*, 45, 1, 174-182, 2011 http://dx.doi.org/10.1016/j.atmosenv.2010.09.029 (***I.F.: 3.139***)
16. Kulkarni, P.S., Sachin D. Ghude and **D. Bortoli**, Tropospheric ozone (TOR) trend over three major inland Indian cities: Delhi, Hyderabad and Bangalore, *Annales Geophysicae*, 28, 1879-1885, 2010 *http://dx.doi.org/10.5194/angeo-28-1879-2010*. (***I.F.: 1.620***)
17. Guerrero-Rascado J. L., Costa M.J., **Bortoli, D.**, A. Silva, H. Lyamani, and L. Alados-Arboledas, Infrared lidar overlap function: an experimental determination, *Optics Express* 18, 20350-20359, 2010 http://dx.doi.org/10.1364/OE.18.020350 (***I.F.: 3.749***).

18. **Bortoli D.**, A.M. Silva, G. Giovanelli, A new multipurpose UV-Vis spectrometer for air quality monitoring and climatic studies, *International Journal of Remote Sensing*, 31, 3, 705-725, 2010. http://dx.doi.org/10.1080/01431160902896231 (***I.F.: 1.182***)
19. Antón, M., **D. Bortoli**, J.M. Vilaplana, A.M. Silva, A. Serrano, M. J. Costa, B. de la Morena, and M. Kroon, Total ozone column from direct and diffuse spectral solar irradiance in the southwest Iberian peninsula**,** J. Geophys. Res. 2010.
http://dx.doi.org/10.1029/2009JD012514. (***I.F.: 3.303***)
20. Antón, M., M. López, M.J. Costa, A. Serrano, **D. Bortoli**, M. Bañón, J.M.Vilaplana, and A.M. Silva, Influence of the ozone profile above Madrid (Spain) on Brewer estimation of ozone air mass factor, Ann. Geophys., 27, 3179–3183, 2009.
http://dx.doi.org/10.5194/angeo-27-3179-2009 (***I.F.: 1.660***)
21. **Bortoli D.**, A.M. Silva, M. J. Costa, A.F. Domingues and G. Giovanelli, Monitoring of atmospheric ozone and nitrogen dioxide over the south of Portugal by ground-based and satellite observations, *Optics Express* 17, 15, 12944-12959, 2009
http://dx.doi.org/10.1364/OE.17.012944 (***I.F.: 3.260***)
22. **Bortoli D.**, A.M. Silva, M.J. Costa, A.F. Domingues and G. Giovanelli, Monitoring of atmospheric minor compounds at the Evora Station - Portugal, *International Journal of Remote Sensing*, 30, 15-16, 4209-4226, 2009.
http://dx.doi.org/10.1080/01431160902822849 (***I.F.: 1.089***)
23. Wagner, F., **Bortoli, D.**, Pereira, S., Costa, M.J., Silva, A.M., Weinzierl, B., Esselborn, M., Petzold, A., Rasp, K., Heinold, B., Tegen, I., 2009. Properties of dust aerosol particles transported to Portugal from the Sahara desert, Tellus Series B-Chemical and Physical Meteorology, 61 (1), 297-306.
http://dx.doi.org/10.1111/j.1600-0889.2008.00393.x (***I.F.: 2.356***)
24. Elisa Palazzi, Andrea Petritoli, Fabrizio Ravegnani, Ivan Kostadinov, **Daniele Bortoli**, Samuele Masieri, Margherita Premuda, and Giorgio Giovanelli, Retrieval of Gas Pollutants Vertical Profile in the Boundary Layer by Means of Multiple Axis DOAS, Special Issue IEEE TRANSACTIONS ON GEOSCIENCE AND REMOTE SENSING, 46, 10, 2796 - 2802, 2008
http://dx.doi.org/10.1109/TGRS.2008.2000927 (***I.F.: 3.157***)
25. Werner,R., Iv. Kostadinov, D. Valev, A. Hempelmann, At. Atanasov, G. Giovanelli, A. Petritoli, D**. Bortoli,** F. Ravegnani, T. Markova; NO2 column amount and total ozone in Stara Zagora (42°N, 25°E) and their response to the solar rotational activity variation; Adv. Space Res., v. 37, n.5, pp 1614 - 1620, 2006
http://dx.doi.org/10.1016/j.asr.2005.12.002 (***I.F.: 0.706***)
26. Giovanelli G., E. Palazzi, A. Petritoli, **D. Bortoli**, I. Kostadinov, F. Margelli, S. Pagnutti, M. Premuda : Perspectives of 2d and 3d mapping of atmospheric pollutants over urban areas by means of airborne DOAS spectrometers. *Annals of Geophysics*, 49, 1, 133-142, 2006.
http://dx.doi.org/10.4401/ag-3163 (***I.F.: 0.441***)
27. Kostadinov, I., G. Giovanelli, **D. Bortoli**, A. Petritoli, F. Ravegnani, G. Pace and E. Palazzi, A multi-input UV-VIS airborne GASCOD/A4r spectroradiometer for the validation of satellite remote sensing measurements, *Annals of Geophysics*, 49, 1, 71-81, 2006.
http://dx.doi.org/10.4401/ag-3153(***I.F.: 0.441***)
28. **Bortoli, D**., G. Giovanelli, F. Ravegnani, I. Kostadinov and A. Petritoli, Stratospheric Nitrogen Dioxide in the Antarctic, *Int J. Of Remote Sensing*, 26, 16, 3395–3412, 2005,
http://dx.doi.org/10.1080/01431160500076418 (***I.F.: 0.980***)
29. Giovanelli, G., **D. Bortoli**, A. Petritoli, E. Castelli, I. Kostadinov, F. Ravegnani, G. Redaelli, C. M. Volk, U. Cortesi, G. Bianchini and B. Carli, Stratospheric minor gas distribution over the Antarctic Peninsula during the APE-GAIA campaign, *Int J. Of Remote Sensing*, 26, 16, 3343–3360, 2005,
http://dx.doi.org/10.1080/01431160500076210 (***I.F.: 0.980***)
30. Palazzi, E., A. Petritoli, G. Giovanelli, I. Kostadinov, **D. Bortoli**, F. Ravegnani, S.S. Sackey, PROMSAR: A backward Monte Carlo spherical RTM for the analysis of DOAS remote sensing measurements, *Adv. Space Res.*, v. 36, n. 5, 1007-1014, 2005.
http://dx.doi.org/10.1016/j.asr.2005.05.017 (***I.F.: 0.706***)
31. Petritoli, A., P. Bonasoni, G. Giovanelli, F. Ravegnani, I. Kostadinov, **D. Bortoli**, A. Weiss, D. Schaub, A. Richter, andF. Fortezza, First comparison between ground-based and satellite-borne measurements of tropospheric nitrogen dioxide in the Po basin, J. Geophys. Res., 109, D15307, 2004
http://dx.doi.org/10.1029/2004JD004547. (***I.F.: 2.839***)
32. Werner,R., Iv. Kostadinov, D. Valev, At. Atanasov, G. Giovanelli, F. Ravegnani, A. Petritoli and **D. Bortoli**; Spectrometric Measurements of NO2 slant column amount at Stara Zagora Station (42°N, 25°E); Adv. Space Res., v. 31, n.5, pp 1473 - 1478, 2003
http://dx.doi.org/10.1016/S0273-1177(02)00960-2 **(I.F.: 0.483)**
33. Petritoli, A., G.Giovanelli, I. Kostadinov, F.Ravegnani, **D.Bortoli**, C. Gori, P. Bonasoni, F. Evangelisti, F. Calzolari, Tropospheric and stratospheric NO_2 amount deduced by slant column measurements at Mt. Cimone station, *Adv. in Space Research*, v.29, n.11, 1691-1695, 2002.
http://dx.doi.org/10.1016/S0273-1177(02)00121-7 **(I.F.: 0.448)**
34. Petritoli, A., G. Giovanelli, F. Ravegnani, **D. Bortoli**, I. Kostadinov, A. Oulanovsky, Off-axis measurements of atmospheric trace gases from an airborne uv-vis spectroradiometer; *Applied Optics: Lasers, Photonics, and Environmental Optics*, 41, 27, 5593-5599, 2002.
http://dx.doi.org/10.1364/AO.41.005593 (***I.F.: 1.717***)

NOT JCR

35. Werner R., Hempelmann A., Valev D., Kostadinov I., Atanassov At., Giovanelli G., Petritoli A., Bortoli D., Ravegnani F., The solar rotational activity variations during the 23-th solar cycle, Sun and Geosphere (on line http://www.stil.bas.bg/IHY/), 1,1, 39-42, 2006. ISSN: 1819 - 0839
36. Werner R., Valev D., Kostadinov I., Atanassov At., Giovanelli G., Petritoli A., Bortoli D., Ravegnani F., Study of atmospheric trace gas amount at the Stara Zagora Ground-Based Station, Sun and Geosphere (on line http://www.stil.bas.bg/IHY/), 1,1, 43-46, 2006. ISSN: 1819 - 0839

Conference Proceedings

ISI Indexed

37. Genco, S., Bortoli, D., Ravegnani, F., Remote sensing monitoring of the global ozonosphere (2013) Proceedings of SPIE - The International Society for Optical Engineering, 8890, art. no. 889006 *http://dx.doi.org/10.1117/12.2029436*.
38. Bortoli, D., Ravegnani, F., Costaa, M.J., Genco, S., Kulkarni, P.K., Mendes, R., Domingues, A.F., Anton, M., Giovanelli, G., Silva, A.M., Monitoring of nitrogen dioxide, ozone and halogens radicals in Antarctica (2013) Proceedings of SPIE - The International Society for Optical Engineering, 8890, art. no. 889005, *http://dx.doi.org/10.1117/12.2029277*
39. Costa, M.J., Salgueiro, V., Santos, D., **Bortoli, D.,** Silva, A.M., Salgado, R., Surface cloud radiative forcing in the South of Portugal, AIP Conference Proceedings, 1531, pp. 684-687. 2013, http://dx.doi.org/10.1063/1.4804862
40. Costa, M.J., **Bortoli, D**., Pereira, S., Salgueiro, V., Silva, A.M., Serrano, A., Antón, M., Vilaplana, J.M., Cancillo, M.L., Santos, D., Kulkarni, P., Surface UV radiation in the South of Portugal: Monitoring and assessment of cloud effects, AIP Conference Proceedings, 1531, pp. 852-855, 2013, http://dx.doi.org/10.1063/1.4804904
41. **Bortoli, D**., Ravegnani, F., Giovanelli, G., Kulkarni, P.S., Anton, M., Costa, M.J., Silva, A.M., Fifteen years of stratospheric nitrogen dioxide and ozone measurements in Antarctica, AIP Conference Proceedings, 1531, pp. 300-303, 2013
http://dx.doi.org/10.1063/1.4804766
42. Masieri, S., Premuda, M., **Bortoli, D.**, Kostadinov, I., Petritoli, A., Ravegnani, F., Giovanelli, G., "Cruise ships flow rate emission evaluated by means of a passive DOAS instrument" in Remote Sensing for Environmental Monitoring, GIS Applications, and Geology IX, edited by Ulrich Michel, Daniel L. Civco, Proceedings of SPIE Vol. 7478 (SPIE, Bellingham, WA 2009) 74781S.
http://dx.doi.org/10.1117/12.830309
43. Masieri, S., **Bortoli, D**., Petritoli, A., Kostadinov, I., Premuda, M., Ravegnani, F., Carnevale, C., Pisoni, E., Volta, M., Giovanelli, G., "Tropospheric profile of NO2 over the Po Valley measured with scan DOAS spectrometer" in Remote Sensing for Environmental Monitoring, GIS Applications, and Geology IX, edited by Ulrich Michel, Daniel L. Civco, Proceedings of SPIE Vol. 7478 (SPIE, Bellingham, WA 2009) 74782I.
http://dx.doi.org/10.1117/12.830413
44. Kostadinov, I., Ravegnani, F., Petritoli, A., **Bortoli, D.**, Masieri, S., Premuda, M., Giovanelli, G., "Airborne UV/Vis actinic measurements in the lower Antarctic stratosphere" in Remote Sensing for Environmental Monitoring, GIS Applications, and Geology IX, edited by Ulrich Michel, Daniel L. Civco, Proceedings of SPIE Vol. 7478 (SPIE, Bellingham, WA 2009) 74780P.
http://dx.doi.org/10.1117/12.830571
45. Santos, D., Costa, M. J., Silva, A. M., Salgado, R., **Bortoli, D.**, "Comparison of cloud height and depth from atmospheric modelling and ceilometer measurements" in Remote Sensing of Clouds and the Atmosphere XIV, edited by Richard H. Picard, Klaus Schäfer, Adolfo Comeron, Evgueni I. Kassianov, Christopher J. Mertens, Proceedings of SPIE Vol. 7475 (SPIE, Bellingham, WA 2009) 747512.
http://dx.doi.org/10.1117/12.830463
46. Costa, M. J., **Bortoli, D.**, "Cloud detection and classification from multi-spectral satellite data" in Remote Sensing of Clouds and the Atmosphere XIV, edited by Richard H. Picard, Klaus Schäfer, Adolfo Comeron, Evgueni I. Kassianov, Christopher J. Mertens, Proceedings of SPIE Vol. 7475 (SPIE, Bellingham, WA 2009) 747514.
http://dx.doi.org/10.1117/12.830220
47. Premuda, M., Masieri, S., **Bortoli, D.**, Margelli, F., Ravegnani, F., Petritoli, A., Kostadinov, I., Giovanelli, G., Cupini, E., "A Monte Carlo simulation of radiative transfer in the atmosphere applied to ToTaL-DOAS" in Remote Sensing of Clouds and the Atmosphere XIV, edited by Richard H. Picard, Klaus Schäfer, Adolfo Comeron, Evgueni I. Kassianov, Christopher J. Mertens, Proceedings of SPIE Vol. 7475 (SPIE, Bellingham, WA 2009) 74751A.
http://dx.doi.org/10.1117/12.830073
48. **Bortoli, D.**, Ravegnani, F., Giovanelli, G., Kostadinov, I., Petritoli, A., Masieri, S., Premuda, M., Martins, H. T., Silva, A. M., "Ozone and nitrogen dioxide total columns and vertical distributions at the Italian Antarctic station during 1996-2008" in Remote Sensing of Clouds and the Atmosphere XIV, edited by Richard H. Picard, Klaus Schäfer, Adolfo Comeron, Evgueni I. Kassianov, Christopher J. Mertens, Proceedings of SPIE Vol. 7475 (SPIE, Bellingham, WA 2009) 74751I.
http://dx.doi.org/10.1117/12.830085

49. **Bortoli, D.**, Masieri, S., Domingues, A. F., Costa, M. J., Silva, A. M., Anton, M., Palazzi, E., "Observations of tropospheric compounds at Evora station with multi-axis hyperspectral measurements" in Remote Sensing of Clouds and the Atmosphere XIV, edited by Richard H. Picard, Klaus Schäfer, Adolfo Comeron, Evgueni I. Kassianov, Christopher J. Mertens, Proceedings of SPIE Vol. 7475 (SPIE, Bellingham, WA 2009) 74751K. http://dx.doi.org/10.1117/12.830104
50. Domingues, A. F., **Bortoli, D.**, Antón, M., Silva, A. M., "Ozone, nitrogen dioxide and BrO total columns over Évora-Portugal during 2007-2008" in Remote Sensing of Clouds and the Atmosphere XIV, edited by Richard H. Picard, Klaus Schäfer, Adolfo Comeron, Evgueni I. Kassianov, Christopher J. Mertens, Proceedings of SPIE Vol. 7475 (SPIE, Bellingham, WA 2009) 74751L. http://dx.doi.org/10.1117/12.830460
51. M. J. Costa; D. Bortoli; S. Pereira; A. M. Silva; F. Wagner; N. Belo; J. L. Guerrero-Rascado; F. Navas-Guzman; L. Alados-Arboledas, Analysis of the measurements taken by a Ceilometer installed in the south of Portugal. In Remote Sensing of Clouds and the Atmosphere XII, edited by Adolfo Camerón, Klaus Schäfer, James R. Slusser, Richard H. Picard, Also Amodeo, Proceedings of SPIE, (SPIE Bellingham, WA, 2007) Vol. 6745, 674523-1 - 674523-12, (2007). http://dx.doi.org/10.1117/12.738096
52. **Bortoli, D.**, G. Giovanelli D. Roselli and A.M. Silva, Stratospheric Ozone and Nitrogen Dioxide total column and vertical profiles in south of Portugal during 2004-2007. In Remote Sensing of Clouds and the Atmosphere XII, edited by Adolfo Camerón, Klaus Schäfer, James R. Slusser, Richard H. Picard, Also Amodeo, Proceedings of SPIE, (SPIE Bellingham, WA, 2007) Vol..6745, 67450E-1 - 67450E-12, (2007). http://dx.doi.org/10.1117/12.737797
53. Palazzi, E., A. Petritoli, F. Ravegnani, I. Kostadinov, **D. Bortoli**, G. Giovanelli, Multiple axis DOAS measurements for the retrieval of NO2 and O3 vertical profiles in the Presidential Estate of Castel Porziano (Rome) In Remote Sensing of Clouds and the Atmosphere XII, edited by Adolfo Camerón, Klaus Schäfer, James R. Slusser, Richard H. Picard, Also Amodeo, Proceedings of SPIE, (SPIE Bellingham, WA, 2007)Vol.6745, 67451Y-1 - 67451Y-9 (2007). http://dx.doi.org/10.1117/12.737246
54. Palazzi, E., A. Petritoli, F. Ravegnani, I. Kostadinov, **D. Bortoli**, G. Giovanelli, A semianalytic Monte Carlo code for modelling LIDAR measurements, In Remote Sensing of Clouds and the Atmosphere XII, edited by Adolfo Camerón, Klaus Schäfer, James R. Slusser, Richard H. Picard, Also Amodeo, Proceedings of SPIE, (SPIE Bellingham, WA, 2007), Vol. 6745, 67451G-1 - 67451G-12, (2007). http://dx.doi.org/10.1117/12.737254
55. D. Santos, M. J. Costa, **D. Bortoli** and A. M. Silva, Satellite estimated cloud radiative forcing in the presence of aerosol events over the south of Portugal, In Remote Sensing of Clouds and the Atmosphere XII, edited by Adolfo Camerón, Klaus Schäfer, James R. Slusser, Richard H. Picard, Also Amodeo, Proceedings of SPIE, (SPIE Bellingham, WA, 2007), Vol. 6745, 674522-1 - 674522-12, (2007). http://dx.doi.org/10.1117/12.737951
56. Palazzi, E., Petritoli, A., Ravegnani, F., Giovanelli, G., Kostadinov, I., **Bortoli, D**., Daily Evolution of Atmospheric Gas Pollutants Vertical Profile in a Coastal Mediterranean Area, In Proceedings of IGARSS 2007 (IEEE International Geoscience and Remote Sensing Symposium), pp. 4272-4275, 2007. E-ISBN :978-1-4244-1212-9; Print ISBN: 978-1-4244-1211-2, http://dx.doi.org/10.1109/IGARSS.2007.4423795
57. **Bortoli, D.**, F. Ravegnani, Iv. Kostadinov, G. Giovanelli, A. Petritoli, F.Calzolari, MJ. Costa, A.M. Silva, Stratospheric Nitrogen Dioxide In Antarctic Regions From Ground Based And Satellite Observation During 2001, Proc. SPIE, Vol. 4882 304-313, 2003. http://dx.doi.org/10.1117/12.462602
58. Ivan K. Kostadinov, L. Grassi, G. Ballista, Giorgio Giovanelli, Rodolfo Guzzi, **Daniele Bortoli**, W. Di Nicolantonio, C. Lecerf, Andrea Petritoli, Fabrizio Ravegnani, S. Scarpanti, Multiple-Angle Input Optic For Satellite UV-Vis NIR Remote Sensing For Climatic Studies *Proc. SPIE* Vol. 4829, p. 176-177, 2003. http://dx.doi.org/10.1117/12.524436
59. **Bortoli, D.**, F. Ravegnani, Iv. Kostadinov, G. Giovanelli, A. Petritoli, P. Bonasoni and R. Werner, Stratospheric Ozone And Nitrogen Dioxide Amount Obtained With GASCOD Type DOAS Spectrometer At Terra Nova Bay (Antarctica) During December 2000-January 2001, *Proc. SPIE*, Vol. 4485, 225-235, 2002. http://dx.doi.org/10.1117/12.454255
60. Giovanelli, G., E. Castelli, **D. Bortoli**, Iv. Kostadinov, F. Ravegnani, A. Petritoli, P. Mazzinghi and R. Rizzi, Fabry-Perot Interferometer For Atmospheric HCl And CH4 Remote Sensing, *Proc. SPIE*, Vol. 4485, 107-116, 2002. http://dx.doi.org/10.1117/12.454241
61. Petritoli, A., Giovanelli, G., Ravegnani, F., **Bortoli, D**., Kostadinov, I. K., Castelli, E., Bonafe, U., Oulanovsky, A., Yushkov, V., "Development of a new methodology for the retrieval of in-situ stratospheric trace gases concentration from airborne limb-absorption measurements," Proceedings of SPIE Vol. 4485, pp. 486-492 (2002). http://dx.doi.org/10.1117/12.454285
62. Petritoli, A.; Bonasoni, P.; Bonafe, U.; **Bortoli, D.**; Calzolari, F.; Evangelisti, F.; Kostadinov, I.; Ravegnani, F.; Giovanelli, G. Stratospheric No2 Climatological Trend At Northern Mid-Latitudes From 8 Years Of Ground Based Observations At Mt. Cimone Station Geoscience and Remote Sensing Symposium, 2002. IGARSS '02. 2002 IEEE International, 4, 2331 –2333, 2002 ISBN:0-7803-7536-X

63. Kostadinov I., G. Giovanelli, F. Ravegnani, **D. Bortoli**, A. Petritoli, U. Bonafe', M.L. Rastello and P.Pisoni: Upward And Downword Irradiation Measuremet On Board Of Geophysica Aircraft During The APE-THESEO And APE-GAIA Campaign. Proc. of *Current Problems in Atmospheric Radiation, International Radiation Symposium, St. Petersberg, Russia, 24-29 luglio 2000. W.L Smith and Y.M. Timofeyev Eds.*, 1185-1188, 2001. ISBN-13: 9780937194430
64. **Bortoli, D.**, F. Ravegnani, G. Giovanelli, Iv. Kostadinov, A. Petritoli, Stratospheric Nitrogen Dioxide Observations At Mid And High Latitude Performed With Ground Based Spectrometers, *Proc. SPIE*, Vol. 4168, 297-308, 2000. http://dx.doi.org/10.1117/12.413877
65. Gori, C., G. Giovanelli, Iv. Kostadinov, F. Ravegnani, A. Petritoli, **D. Bortoli,** Application of Fabry-Perot Interferometer for Atmospheric HCl Remote Sensing, *Proc. SPIE*, Vol. 4168, 286-296, 2000. http://dx.doi.org/10.1117/12.413876
66. Petritoli A., G. Giovanelli, U. Bonafe', **D. Bortoli**, U. Bonafe; Iv. Kostadinov and F. Ravegnani, Preliminary Results From GASCOD/A Spectroradiometer During APE-GAIA Campaign, *Proc. SIF*, Vol. 69, 281-292, 2000. ISBN:88-7794-247-9, ISSN: 1122-1437
67. **Bortoli, D.**, F. Ravegnani, G. Giovanelli, Iv Kostadinov, A. Petritoli and G. Trivellane, Continuous Observation Of NO_2 And O_3 Total Columns At Terra Nova Bat Station, Antarctica, *Proc. SIF*, Vol. 69, 363-374, 2000. ISBN:88-7794-247-9, ISSN: 1122-1437
68. Kostadinov, Iv, G. Giovanelli, **D. Bortoli**, F. Ravegnani, A. Petritoli and U. Bonafe', UV-Vis Spectroradiometric System For Actinic Measureme4nts On Board Of Geophysica Aircraft, *Proc. SIF*, Vol. 69, 293-303, 2000. ISBN:88-7794-247-9, ISSN: 1122-1437
69. **Bortoli, D.**, D. Cava, U. Giostra, A. Lavagnini, V. Malvestuto, M. Nardino, G. Orsi, A. M. Sempreviva, M. Tagliazucca, C. Transerisci, G. Trivellane, A Preliminary Study Of Turbulence Structure Change Along A Katabatic Wind Path Intersecting An Obstacle, *Proc. SIF*, Vol. 69, 203-218, 2000. ISBN:88-7794-247-9, ISSN: 1122-1437
70. Kostadinov, Iv., G. Giovanelli, F. Ravegnani, **D. Bortoli**, A. Petritoli, Depolarization ratio of the zenith scattered radiation and measured NO_2 slant column, *Proc. SPIE*, Vol. 3754, 402-410, 1999. http://dx.doi.org/10.1117/12.366353
71. Petritoli, A., G. Giovanelli, U. Bonafè, **D. Bortoli**, I. Kostadinov, F. Ravegnani, Airborne UV and Visible Spectrometer for DOAS and radiometric measurement, *Proc. SPIE*, Vol. 3756, 544-554, 1999. http://dx.doi.org/10.1117/12.366415
72. Petritoli, A., G. Giovanelli, P. Bonasoni, T. Colombo, F. Evangelisti, U.Bonafe, **D. Bortoli**, Iv. Kostadinov and F. Ravegnani, Ground Based NO_2 And O_3 Analysis At M.te Cimone Station During 1995-1996: A Case Study For Spring 1995 NO_2 Concentration Profile, *Proc. SPIE*, Vol. 3867, 280-289, 1999. http://dx.doi.org/10.1117/12.373060

Conference Proceedings
NOT ISI

73. M. Antón, D. Bortoli, J.M. Vilaplana, M. Kroon, A.M Silva, A.F. Domingues, A. Serrano, M.L. Cancillo and B. de la Morena, COMPARISON OF OMI-DOAS SATELLITE TOTAL OZONE COLUMN OBSERVATIONS WITH GROUND-BASED DATA FROM DIRECT AND DIFFUSE SOLAR IRRADIANCE IN THE SOUTHWEST IBERIAN PENINSULA, Proc. 'Atmospheric Science Conference', Barcelona, Spain, 7–11 September 2009, pp. 9, (ESA SP-676, November 2009) ISBN : 978-92-9221-240-7
74. Ana Filipa Domingues, Daniele Bortoli, Ana Maria Silva, Manuel Antón, Samuele Masieri, NO2 SEASONAL VARIATION AND TROPOSPHERIC VERTICAL PROFILES RETRIEVAL WITH GROUND BASED AND SATELLITE EQUIPMENTS AT ÉVORA STATION-PORTUGAL, , Proc. 'Atmospheric Science Conference', Barcelona, Spain, 7–11 September 2009, pp. 6 (ESA SP-676, November 2009 ISBN : 978-92-9221-240-7
75. Domingues, A.F., **D. Bortoli**, A. M. Silva, Caracterização de episódios de poluição em Évora utilizando um espectrómetro UV-Vis : Caso estudo de dia 9 de Maio de 2008 - Characterization of pollution events over Évora using a Ground-based UV-Vis spectrometer: case study 9th of May 2008, GeoBoletim, 12, 8-9, 2009
76. Santana, M., **D. Bortoli**, A. M. Silva, Caracterização de corrente escura de um sensor de imagem – Charcterization of the dark current for an imaging sensor, GeoBoletim, 12, 12-13, 2009
77. Domingues A. F., , **Bortoli D.**, Ana Maria Silva, Air quality monitoring using a ground based UV-Vis. Spectrometer at Evora station – Portugal, in Proc. GCGW – Global Conference on Global Warming – 5-9 July 2009 Istanbul Turkey, Dincer, I. Colpan, C.O., Midilli, A. eds, 1124, 1134, 2009, ISBN:978-605-89885-1-4
78. D. Santos, M. J. Costa, A.M. Silva, R. Salgado, A. Domingues, and **D. Bortoli**, Saharan Desert Dust Radiative Effects: A study based on atmospheric modeling, in Proc. GCGW – Global Conference on Global Warming – 5-9 July 2009 Istanbul Turkey, Dincer, I. Colpan, C.O., Midilli, A. eds, 193-203, 2009, ISBN:978-605-89885-1-4.
79. Palazzi, E., M. Premuda, A. Petritoli, G. Giovanelli, F. Ravegnani, I. Kostadinov, **D. Bortoli** and F. Margelli, PROMSAR: a multiple scattering atmospheric model for the interpretation of DOAS measurements, Atti della

fondazione Giorgio Ronchi, Selected papers of GOLD IEEE Remote Sensing conference, M. Migliaccio, and A. Iodice (Eds.), ANNO LX, 2005, N. 4, pp.689-695, 2005.

80. Werner, R.; Hempelmann, A.; Valev, D.; Kostadinov, I.; Atanassov, At.; Giovanelli, G.; Petritoli, A.; **Bortoli, D.**; Ravegnani, F.: Wavelet analysis of the solar rotational activity variations. Aerospace Research in Bulgaria , No. 20, p. 299 - 308 (2005). In: Balkan Astronomical Meeting, BAM 2004, 14-18 June 2004, Rozhen, Bulgaria.
ISSN 0861-1432
81. Kostadinov, I.; Petritoli, A.; Werner, R.; Valev, D.; Atanasov, At.; **Bortoli, D.**; Markova, T.; Ravegnani, F.; Palazzi, E.; Giovanelli, G. Validation of SCIAMACHY NO2 Vertical Column Densities with Mt.Cimone and Stara Zagora Ground-Based Zenith Sky DOAS Observations, Proceedings of the Second Workshop on the Atmospheric Chemistry Validation of ENVISAT (ACVE-2), 3-7 May 2004, ESA-ESRIN, Frascati, Italy (ESA SP-562). Editor: D. Danesy, p.37.1-37.5, published on CDROM, 2004
82. **Bortoli, D.**, G. Giovanelli, F. Ravegnani, F. Calzolari, M. J. Costa, A.M. Silva, S. Beirle, T. Wagner, M. Wenig and U. Platt, Stratospheric Nitrogen Dioxide Over Terra Nova Bay Station From Ground Based And Satellite Observation, *SIF Conf. Proc.*, 89, 153-168, 2004.
ISBN: 88-7438-021-6
83. E. Palazzi, M. Premuda, A. Petritoli, G. Giovanelli, I. Kostadinov, F. Ravegnani and **D. Bortoli**: "A multiple scattering atmospheric radiative transfer model for diffuse solar radiation measurements along slant polar trajectories", *SIF Conf. Proc.*, 89, 41-58, 2004. .
ISBN: 88-7438-021-6
84. **Bortoli D**., G. Giovanelli, A.M. Silva, Ozone and Stratospheric Nitrogen Dioxide Monitoring in the South of Portugal from Ground-Based and Satellite Measurements. *Proc. 2004 EUMETSAT Meteorological Satellite Conf.*, 407-413,Prague, 31 May - 4 June, (2004).
http://www.eumetsat.int/website/wcm/idc/idcplg?IdcService=GET_FILE&dDocName=PDF_CONF_P41_S3_BORTOLI_P&RevisionSelectionMethod=LatestReleased&Rendition=Web
85. **Bortoli, D.**, M.J. Costa, G. Giovanelli, A.M. Silva Vertical Column Of Atmospheric Compounds From Gome Data Analysis, *Proc. EUMETSAT-"The 2002 EUMETSAT Meteorological Satellite Data Users' Conference"*, 669-676, 2003.

Chapters in Book

86. Domingues. A.F., D.Bortoli, A. M. Silva, M. Anton, M. J, Costa and P. Kulkarni, Ozone seasonal variation with ground-based and satellite equipments at Évora Observatory - Portugal during 2007-2010, in Earth Observation of Global Changes (EOGC), Springer Book, Publisher: Springer Berlin Heidelberg, pp 137-146, 2013, ISBN: 3642327133
87. Kostadinov, I., G. Giovanelli, A. Petritoli, E. Palazzi, D. Bortoli, F. Ravegnani, R. Werner, D. Valev, At. Atanassov, T. Markova, A. Hempelmann, Risposta diretta del contenuto colonnare di NO2 e O3 al ciclo solare di 27 giorni nell'ottica dei problemi climatici, in Clima e cambiamenti climatici: le attività del CNR, Editore: Consiglio Nazionale delle Ricerche – Roma, ISBN 978-88-8080-075-0, pp. 319-322, 2007.
88. Petritoli, A., E. Palazzi, F. Ravegnani, I. Kostadinov, D. Bortoli, S. Masieri, G. Giovanelli, Otto anni di osservazioni a Mt. Cimone: analisi climatologica del biossido di azoto in stratosfera, in Clima e cambiamenti climatici: le attività del CNR, Editore: Consiglio Nazionale delle Ricerche – Roma, ISBN 978-88-8080-075-0, pp. 401-404, 2007.
89. Bortoli D., G. Giovanelli, F. Ravegnani, I. Kostadinov, S. Masieri, E. Palazzi, A. Petritoli, F. Calzolari, G. Trivellone, Studio delle variazioni di NO2 nella stratosfera Antartica a diverse scale temporali, in Clima e cambiamenti climatici: le attività del CNR, Editore: Consiglio Nazionale delle Ricerche – Roma, ISBN 978-88-8080-075-0, pp. 483-486, 2007.