

PERSONAL INFORMATION

Adrian Bogdan Antonescu



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WORK EXPERIENCE

Mar 2018 – Present

Senior Researcher (CSI)

National Institute of Research and Development for Optoelectronics INOE2000
str. Atomiștilor 409, Măgurele, România

- Remote sensing of clouds and precipitation. Principal investigator of the Măgurele Cloudnet station (<https://cloudnet.fmi.fi>).
- FRM4RADAR (ESA contract No 4000122916/17/I-EF) – FRM4RADAR – 94 GHz Miniature Network for EarthCARE Reference Measurements is a European Space Agency project aiming to establish an observation network for validation, verification and calibration of EarthCARE cloud profile measurements based on ground-based, high-quality remote sensing observations
- ACTRIS (PN-III-P3-3.6-H2020-2016-0058) – The Research Infrastructure (RI) ACTRIS – Aerosols, Clouds and Trace Gases – is the pan-European RI that consolidates activities amongst European partners for observations of aerosols, clouds, and trace gases and for the understanding of the related atmospheric processes, to provide RI services to wide user groups

Jun 2016 – Dec 2017

Postdoctoral Researcher

Centre for Atmospheric Science, The University of Manchester
Simon Building, Oxford Road, Manchester, United Kingdom

I was part of a team working on the *What's the Worst That Can Happen? Re-examining the Most Destructive Convective Storms over Europe*, a project lead by Prof. David M. Schultz and funded by the Risk Prediction Initiative of the Bermuda Institute of Ocean Sciences. During this project, I have developed climatologies for convective storms over Europe and studied their impacts. I have also contributed to the analysis of the 24–25 June 1967 tornado outbreak over Western Europe (e.g., GIS analysis of the damages).

Jan 2014 – May 2016

Postdoctoral Researcher

Centre for Atmospheric Science, The University of Manchester
Simon Building, Oxford Road, Manchester, United Kingdom

My research, *Assessing the Threat of Severe Convective Storms over Europe*, funded by AXA Research Fund, exploited a recent developed pan-European datasets (e.g., severe weather reports) for the first time to i) create spatial and temporal distributions of severe weather events, ii) better understand the factors controlling the distribution of severe weather events over Europe, and iii) develop physically-based conceptual models for convective storms that will benefit our understanding and forecasting.

Dec 2010 – Dec 2013

Postdoctoral Researcher

Centre for Atmospheric Science, The University of Manchester
Simon Building, Oxford Road, Manchester, United Kingdom

The goal of the TROSIAD project (*TROpopause folding, Stratospheric Intrusions And Deep convection*) lead by Prof. Geraint Vaughan and Prof. David M. Schultz was to build a conceptual model linking tropopause folds and tropopause level cyclonic anomalies to the occurrence of deep convection, that may be used by operational meteorologists to improve weather forecasts. During the TROSIAD project, I was involved in the measurements campaigns (i.e., radiosonde launches from Capel Dewi, Wales) and analysis of the measurements.

Jan 2006 – Dec 2010 **Research Meteorologist**

Romanian National Meteorological Administration
șo. București–Ploiești 97, București, România

I was a part of a team that developed and implemented short-range weather forecasting techniques. I have also managed the Romanian National Lightning Detection Network.

Apr 2004 – Dec 2005 **Short-range weather forecaster**

Romanian National Meteorological Administration
șo. București–Ploiești 97, București, România

I was a part of a team that developed and implemented short-range weather forecasting techniques. I have also managed the Romanian National Lightning Detection Network.

EDUCATION

2022 **Habilitation - Thesis Title: “Tornadoes in Europe”**

Faculty of Physics, University of Bucharest, București, România

2007–2010 **PhD - Thesis Title: “Cloud-to-ground lightning activity of convective storms in Romania” supervisor Prof. Sabina Ștefan**

Faculty of Physics, University of Bucharest, București, România

2003–2005 **Master - Thesis title: “Use of cloud-to-ground lightning data in severe convective storms forecasting” supervisor Prof. Sabina Ștefan**

Faculty of Physics, University of Bucharest, București, România

1999–2003 **Bachelor in Physics**

Faculty of Physics, University of Bucharest, București, România

PERSONAL SKILLS

- Organisational/managerial skills**
- Director of the Romanian Association of Meteorology and Education (ARMAE) (2021 – Present)
 - Deputy Director of the European Severe Storms Laboratory (ESSL) (2016 – Present)
 - member of the Royal Meteorological Society (2017–Present)
 - member of the American Meteorological Society (2015–Present)
 - member of the International Commission on History of Meteorology (2009–Present)
 - Committee Member:
 - 2019 Member of the Scientific Program Committee, 10th European Conference on Severe Storms, 4–8 Nov, Kraków, Poland
 - 2017 Chair of the Scientific Program Committee, 9th European Conference on Severe Storms, 18–22 Sep, Pula, Croatia
 - 2017 Co-organiser of the European Severe Storms Laboratory Summer School on Severe Convection, 28 Aug–1 Sep, Wiener Neustadt, Austria
 - 2015 Member of the Scientific Program Committee, 8th European Conference on Severe Storms, 18–22 Sep, Wiener Neustadt, Austria
 - 2015 Chair of the session “Storms, Supercells, and Tornadoes”, 8th European Conference on Severe Storms, 18–22 Sep, Wiener Neustadt, Austria
 - 2013 Chair of the session “Forecasting”, 7th European Conference on Severe Storms, 3–7 Jun, Helsinki, Finland
 - 2013 Member of the Organizing Committee of the Workshop on Understanding and Representing Atmospheric Convection Across Scales, 28–30 Jan, Devon, United Kingdom
 - 2010 Chair of the Local Organizing Committee of the 6th European Conference on Radar in Meteorology and Hydrology, 6–10 Sep, Sibiu, România
- Communication skills**
- Interviews: I have given radio (e.g., *BBC Paul Hudson’s Weather Show*, *BBC Johnny I’Anson show*, *BBC local stations*), television (e.g., *BBC Northwest*, *That’s Manchester*, *Digi24*, *Antena 1*, *Antena 3*, *TVR2*), online news publications (e.g., *International Business Times*, *The Conversation*, *Press One*, *Diaspora News*, *Vice*) interviews about severe storms and tornadoes.
 - Expert contribution: I am participating as an invited expert to “Planeta ești tu!” (a TV show about climate change hosted by Digi24)
 - Contributions: Articles and interviews about my research on severe storms in Europe have been published in *The Irish Times*, *The Guardian*, *Geographical Magazine*, *sciences et Avenir*, *Jurnalul Național*.
 - Talks: I have given talks for the general public on severe storms at *Science Uncovered* (Manchester Museum, United Kingdom), *Pint of Science Festival* (Manchester, United Kingdom), *Manchester Science Festival* (Manchester, United Kingdom), *Kirkby SciBar* (Kirkby, United Kingdom), Măgurele Science and Technology Summer School (Măgurele, Romania), Romanian Association for Apply Meteorology and Education (Bucharest, Romania), American Meteorological Society (online)
- Reviewer/Member in Editorial Boards**
- Reviewer: I reviewed manuscripts for *Monthly Weather Review*, *Atmospheric Research*, *International Journal of Climatology*, *Journal of Geophysical Research*, *Earth Interactions*, *Journal of Applied Meteorology and Climatology*, *Meteorologische Zeitschrift*, *Remote Sensing of Environment*, *Meteorology*, and *Atmospheric Physics*, *Global and Planetary Change*, *Theoretical and Applied Climatology*, *Meteorological Applications*, *Current Climate Change Reports*, *Natural Hazards*, *Bulletin of the American Meteorological Society*, *Atmosphere*, *Weather and Forecasting*, *Advances in Science and Research*, *Journal of Climate*, *Natural Hazards and Earth System Sciences*, *Remote Sensing*.
 - Associate Editor (2015–present) for *Monthly Weather Review*
 - Associate Editor (2019–present) for *Weather, Climate, and Society*

- Teaching**
- I am teaching the courses *Atmospheric Physics* for the Master programme, Faculty of Physics, University of Bucharest, Bucharest, Romania (2018–present).
 - I am teaching the course *Atmospheric Dynamics* at the “Henri Coanda” Airforce Academy, Braşov, Romania (2019–Present)
 - I have been invited to give a workshop on poster presentations for second-year PhD students at Leeds York NERC Doctoral Training Partnership, Leeds, United Kingdom (2017)
 - I have delivered between 18–29 Aug 2016 introductory lectures (42 hours) on mesoscale meteorology at the Nanjing University of Information Science and Technology (NUIST, China) as a part of the collaboration between NUIST and the University of Manchester (2016)
 - I have contributed with video interviews on the conference and poster presentations to *Creating Effective Conference Presentations Workshop* part of the Graduate and Researcher Programme at the University of Manchester, United Kingdom (2015)
 - I was one of the invited speakers at Cyclone Week, an online training event for forecasters organized by EUMetTrain, a project supported by EUMETSAT, June 2012
 - Between June–August 2012, I have participated in the *Teaching for Researchers* course organized by the University of Manchester, United Kingdom. The course was aimed at research staff who may seek to pursue a career involving teaching in higher education
 - I have taught, during my doctoral studies, introductory classes on severe convection, thermodynamics, atmospheric electricity and weather forecasting for junior meteorologists at the Romanian National School of Meteorology, Bucharest, Romania (2007–2010)

Mother tongue Romanian

Other languages	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
French	B2	C1	B1	B1	B1

Levels: A1 and A2: Basic user – B1 and B2: Independent user – C1 and C2: Proficient user
[Common European Framework of Reference for Languages](#)

Computer skills – R, \LaTeX , Adobe Illustrator proficient user

RESEARCH PROJECTS

- Project Leader**
- *Understanding convective storms and their perils in the current and future climate* (euro 90,000) founded through Proiectul Nucleu III–Tinere Echipe 2019, România.
 - *Assessing the Threat of Severe Convective Storms over Europe* (euro 120,000) founded by AXA Research Fund, The University of Manchester, United Kingdom (2014–2015)

CONFERENCES AND SEMINARIES

- Invited talks**
- **B. Antonescu**, 2020: Tornadoes in Europe: What is the worst that could happen? Workshop: Convective Storm Risk, European Severe Storms Laboratory, 24–26 Nov 2020, online.
 - **B. Antonescu**, 2020: Climatology of observed severe convective storms and their impacts. Workshop: Convective Storm Risk, European Severe Storms Laboratory, 24–26 November 2020, online.
 - **B. Antonescu**, P. Groenemeijer, T. Kühne, D. M. Schultz, T. Púčik, and A. Holzer, 2020: Tornadoes in Europe: What we have learned so far. 54th Congress of the Canadian Meteorological and Oceanographical Society, 25 May–15 Jun, Ottawa, Canada.

PUBLICATIONS (SELECTED)

- [1] **B. Antonescu**, L. Mărmureanu, J. Vasilescu, C.A. Marin, S. Andrei, M. Boldeanu, D. Ene, and A. Ţilea. “A 41-years bioclimatology of thermal stress in Europe”. In: *Int. J. Climatol.* 41 (2021), pp. 3934–3952.
- [2] **B. Antonescu**, T. Púčik, and D.M. Schultz. “Hindcasting the First Tornado Forecast in Europe: 25 June 1967”. In: *Wea. Forecasting* 35 (2020), pp. 417–436.
- [3] **B. Antonescu**, D.M. Schultz, H.M.A.M. Ricketts, and D. Ene. “Theories on tornado and waterspout formation in ancient Greece and Rome”. In: *Weather Clim. Soc.* 11 (2019), pp. 889–900.

- [4] **B. Antonescu**, H.M.A.M. Ricketts, and D.M. Schultz. “100 Years later: Reflecting on Alfred Wegener’s contributions to tornado research in Europe”. In: *Bull. Amer. Meteor. Soc* 100 (2019), pp. 567–578.
- [5] **B. Antonescu**, J.G. Fairman Jr., and D.M. Schultz. “What’s the worst that could happen? Re-examining the 24–25 June 1967 tornado outbreak over Western Europe”. In: *Weather Clim. Soc.* 10 (2017), pp. 323–340.
- [6] **B. Antonescu** and F. Cărbunaru. “Cloud-to-ground lightning fatalities in Romania”. In: *Weather Clim. Soc.* 10 (2017), pp. 241–252.
- [7] **B. Antonescu**, D. M. Schultz, F. Lomas, and T. Kühne. “Tornadoes in Europe: A synthesis of the observational datasets”. In: *Mon. Wea. Rev.* 144 (2016), pp. 2445–2480. (cited in the latest IPCC report).
- [8] **B. Antonescu** and A. Bell. “Tornadoes in Romania”. In: *Mon. Wea. Rev.* 143 (2015), pp. 689–701.
- [9] **B. Antonescu**, G. Vaughan, and D. M. Schultz. “A five-year radar-based climatology of tropopause folds and deep convection over Wales, United Kingdom”. In: *Mon. Wea. Rev.* 141 (2013), pp. 1693–1707.
- [10] **B. Antonescu**, S. Burcea, and A. Tănase. “Forecasting the onset of cloud-to-ground lightning using radar and upper-air data in Romania”. In: *Int. J. Climatol.* 33 (2013), pp. 1579–1584.
- [11] **B. Antonescu** and S. Burcea. “A cloud-to-ground lightning climatology for Romania”. In: *Mon. Wea. Rev.* 138 (2010), pp. 579–591.

Books – **B. Antonescu**, 2017: Tornadoes in Europe: Depictions from 1555 to 1910. Blurb, 100 pp.

Chapters in books – Brooks, H.E., C.A. Doswell III, X. Zhang, A.M. Chernokulsky, E. Tochimoto, B. Hanstrum, E. de Lima Nascimento, D.M. Sills, **B. Antonescu**, and B. Barrett, 2018: A Century of Progress in Severe Convective Storm Research and Forecasting. Meteorological Monographs, 59, 18.1–18.41.

Citations – 538 citations since 2010 / *h*-index 12 according to Web of Science and 780 citations since 2010 / *h*-index 14 according to Google Scholar.

July 26, 2022

Bogdan Antonescu