



Europass Curriculum Vitae



PERSONAL INFORMATION

First name / Surname **Sorin CHEVAL**
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 E-mails sorin.cheval@afahc.ro; sorin.cheval@meteoromania.ro; sorincheval@yahoo.com
 Nationality Romanian
 Date of birth / Gender 20/09/1970 / male

Scientific title Ph. D., Prof. Habil.

PROFESSIONAL POSITIONS

Dates 03/09/2020 to date
 Occupation or position held **Director for Applied Meteorology**
 Main activities and responsibilities Scientific Research Management
 Name and address of employer National Meteorological Administration, 97 Sos. Bucuresti-Ploiesti, Sect. 1, Bucharest, Romania
 Type of business or sector Scientific Research

Dates 2016 to date
 Occupation or position held **Professor; Vice-Dean of Research (2019-2020)**
 Main activities and responsibilities Teaching (General Meteorology, Synoptic Meteorology, Aviation Meteorology, Climatology); Scientific Research; Scientific Research Management
 Name and address of employer "Henri Coandă" Air Force Academy, 160 Mihai Viteazul str., Braşov, Romania
 Type of business or sector Higher Education and Scientific Research

Dates 31/08/2012 to date
 Occupation or position held **Senior Researcher**
 Main activities and responsibilities Fundamental and applied research in natural hazards and climatology (urban climate, climate change). Coordination of/ participation to national and international research projects and proposal submission
 Name and address of employer National Meteorological Administration, 97 Sos. Bucuresti-Ploiesti, Sect. 1, Bucharest, Romania
 Type of business or sector Scientific Research

Dates 2014 to date
 Occupation or position held **Associate Professor**
 Main activities and responsibilities Teaching (Climate Change Policies; Climate Change and Environmental Impacts; Anthropocene)
 Name and address of employer University of Bucharest, 1 Nicolae Bălcescu Blvd, Bucharest, Romania
 Type of business or sector Higher Education and Scientific Research

Dates 16/08/2010 - 31/08/2012
 Occupation or position held **Senior Researcher; Scientific Director (November 2010 – August 2018)**
 Main activities and responsibilities Fundamental and applied research in natural hazards and climatology. Submitting proposals and co-ordinating national and international research projects. Scientific Research Management
 Name and address of employer National Research and Development Institute for Environmental Protection, 294, Splaiul Independentei Str., Bucharest, Romania
 Type of business or sector Scientific Research and Management

Dates 01/05/2004 - 15/08/2010
 Occupation or position held **Senior Researcher**
 Main activities and responsibilities Fundamental and applied research in climatology. Submitting proposals and co-ordinating national and international research projects. Deputy-Head of the Dept. of Climatology (2007-2010)
 Name and address of employer National Meteorological Administration, 97 Sos. Bucuresti-Ploiesti, Sect. 1, Bucharest, Romania
 Type of business or sector Scientific Research

Dates 15/08/1995 - 15/03/2006
 Occupation or position held **Scientific Researcher**
 Main activities and responsibilities Fundamental and applied research in climatology, GIS, natural hazards
 Name and address of employer Institute of Geography, Romanian Academy, 12 D. Racovita str., Bucharest, Romania
 Type of business or sector Scientific Research

EDUCATION AND TRAINING

| | |
|--|---|
| Dates | 01/10/1997 - 15/10/2004 |
| Title of qualification awarded | Ph. D. |
| Principal subjects / occupational skills | Natural hazards, Climatology, GIS |
| Name and type of organisation providing education and training | Institute of Geography, Romanian Academy, Bucharest, Romania |
| Dates | 01/10/1995 - 01/07/1996 |
| Title of qualification awarded | M. Sc. |
| Principal subjects / occupational skills | Climatology |
| Name and type of organisation providing education and training | University of Bucharest, Faculty of Geography, Bucharest, Romania |
| Dates | 01/10/1990 - 15/07/1995 |
| Title of qualification awarded | B. Sc. |
| Principal subjects / occupational skills | Geography |
| Name and type of organisation providing education and training | University of Bucharest, Faculty of Geography, Bucharest, Romania |

Personal skills and competences

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|---------------------------|--------------------------|------------------|---------|------------------|--------------------|------------------|-------------------|------------------|---------|------------------|
| Mother tongue(s) | Romanian | | | | | | | | | |
| Other language(s) | English, French, Italian | | | | | | | | | |
| Self-assessment | Understanding | | | Speaking | | | | Writing | | |
| <i>European level (*)</i> | Listening | | Reading | | Spoken interaction | | Spoken production | | Writing | |
| English | C2 | Proficient user | C2 | Proficient user | C2 | Proficient user | C2 | Proficient user | C2 | Proficient user |
| French | B2 | Independent user | B2 | Independent user | B1 | Independent user | B1 | Independent user | B1 | Independent user |

(*) [Common European Framework of Reference \(CEF\) level](#)

Social skills and competences

Work in multicultural environment, good communication skills, flexibility

EVALUATION EXPERIENCE, ORGANISATIONAL SKILLS AND COMPETENCES

- **Member of the National Council for Attesting Titles, Diplomas and Certificates (C.N.A.T.D.C.U.), Earth Science Commission** (2016 to date)
- **Reviewer of the IPCC V**, Working Groups I & II. Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation (SREX) http://www.ipcc-wg2.gov/SREX/images/uploads/SREX-All_FINAL.pdf
- **Member of the EU Expert group on evaluation methodologies for the interim and ex-post evaluations of Horizon 2020**
- **Pannonian Basin Experiment (PannEx)** (Team Task Leader - Urban Climate and Air Quality) 2018 – 2021
- **Project peer-evaluation:** Horizon 2020 EU Programme (2015-2020); Framework Programme 7 (2010); Portuguese Foundation for Science and Technology (2010-2012); Bulgarian National Science Fund (2016-2017); External observer LIFE+ Project GAIA (2012); Romanian National Plan II - Research Projects for Young Research Teams (2015; 2017; 2020); National University Research Council Romania; National Plan for Research, Development and Innovation, Romania
- **Editor ISI Journal:** Atmosphere (2018 to date)
- **Journal peer-review:** Atmospheric Research; Theoretical and Applied Climatology; Physics and Chemistry of the Earth; Urban Climate; Renewable Energy; Journal of Hydrology; International Journal of Digital Earth; Energy Conversion and Management; International Journal of Climatology; Climate Research; Sensors; Remote Sensing; Sustainability; Energies; Geophysical Research Letters
- **Member in Doctoral Committees:** University of Oradea; West University of Timisoara; "Alexandru Ioan-Cuza" University Iași, Romania; University Transilvania, Brașov, Romania
- **Member in Habilitation Committees:** "Ștefan cel Mare" University Suceava, Romania

Technical skills and competences

- Expertise in various environmental issues in terms of science, impact, management; Extended experience in coordinating and administrating research teams and projects
- Organizing conferences, workshop and other scientific meetings (e.g. Bucharest Urban Climate Summer School 2017, 2018; 2019; National GIS conferences, Documentation of Mountain Disasters Workshop in Bucharest - 1999, Carpatho-Balkan Conference of Geomorphology - 1998, COST ES601 Management Committee - 2010)

Computer skills and competences

- Advanced computer skills, including editing, database manipulation, statistics and image processing. Basic skills in programming

Additional information:

a) awards; research b) fellowship; c) professional consulting; d) mentorship; e) professional membership; f) research metrics

a) Awards

- **Romanian Academy “Ștefan Hepites” Award on 2015**, for the book Micu D, Dumitrescu A, Cheval S, Birsan MV (2015) *Climate of the Romanian Carpathians. Variability and Trends*. Springer 213 pp.
- **Romanian Academy “Ștefan Hepites” Award on 2010**, for the book *Climate variability and changes in Romania* (Pro Universitaria Publ. House, București, 226 pp. In Romanian). Authors: Busuioc A, Caian M, Cheval S, Bojariu R, Boroneant C, Baciuc M, Dumitrescu A.
- **Professor Bologna Award 2018**
- **Associate Professor of the Year Award, Senate of the University of Bucharest, 2017**

b) Research Fellowship

- **Visiting Scientist, Euro-Mediterranean Centre for Climate Change (CMCC), FEEM Venice, Italy (2008)**
- **Fulbright Visiting Scientist, University of South Carolina, Natural Hazards Lab, U.S.A. (2001-2002)**

c) Professional consulting

- World Bank – Integrated Development Strategy for Bucharest (2019-2020)

d) Mentorship

- Post-doctoral research: 2 (University of Bucharest, Romania) (2019-2020, and 2020-2021)
- Doctoral students: 3 (Doctoral School of Sciences, University of Craiova, Romania) (2018-2020)
- Master students: 2 (University of Bucharest, Romania) (2019)
- Bachelor thesis: 23 (“Henri Coandă” Air Force Academy, Brașov, Romania) (2019-2020)

e) Professional membership*International*

- European Geophysical Union (Convener *Urban Climate and Biometeorology*, 2014 to date)
- Society for Urban Ecology (2015 to date)
- European Severe Storm Laboratory - Advisory Board member (2017 – 2020)
- International Commission on History of Meteorology (ICHM), Area Representative (Europe) (2018-2021)

In Romania

- Commission for Renewable Energy of the Romanian Academy (2015-2020); Romanian Meteorological Society (Vice-President, 2012-2016); European Geophysical Union (2014-2017); Romanian Association of Applied Meteorology and Education (2017 to date; President)
- Member in the Management Committee of the COST Actions: COST Action 719: The use of geographical information systems in climatology and meteorology COST Action ES0601: Advances in homogenisation methods of climate series: an integrated approach (HOME)

f) Research metrics

- Web of Science / Clarivate Analytics: h-index 16
- Google Scholar Profile: citations 2045, h-index 21, i10-index 37
- Researcher ID: B-4506-2011 (h-index 156)
- Scopus Author ID: 6507295878 (h-index 16)
- ORCID ID: 0000-0001-6412-1918

**Selected publications
(2003-2020)**

Books

1. Iojă IC, Niță MR, Hossu CA, Onose DA, Badiu DL, Cheval S, Popa AM, Mitincu CG (2020) Soluții verzi pentru orașele din România. Ars Docendi, București, 160 pp, ISBN: 978-606-998-097-2.
2. Micu D, Dumitrescu A, Cheval S, Birsan MV (2015) Climate of the Romanian Carpathians. Variability and Trends. Springer 213 pp.
3. Cheval S (2015) Hazarde naturale în Podișul Dobrogei de Sud și litoralul adiacent. (Natural Hazards in the South Dobroudja Plateau and the adjacent coast) Editura. PRINTECH, București, 200 pp ISBN 978-606-23-0408-9.
4. Cheval S. (Ed) (2012) Natural Disasters. InTech, Rijeka, 156 pp.
5. Busuioc A, Caian M, Cheval S, Bojariu R, Boroneant C, Baci M, Dumitrescu A (2010) Climate variability and changes in Romania. Pro Universitaria Publ House, București, 226 pp. (In Romanian)
6. Bălțeanu D, Busuioc A, Huba M, Pomázi I, Săndulescu M, Witkowski Z, Abrudan I, Balint G, Barka I, Beták J, Bojariu R, Borcos M, Boroneant C, Brožová J, Cheval S, Czernobaj Y, Dumitrașcu M, Enciu P, Gardashuk T, Geicu A, Hanušin J, Ira V, Jurášová E, Kanianska R, Kapusta P, Kirchner K, Kotarba A, Lacika J, Lippert E, Marcinátová L, Maxim I, Minár J, Niewiadomski Z, Pawlowski J, Perzanowski K, Piekos M, Prodanovič H, Prokic S, Ružička T, Šeffler J, Skiba S, Skylnikov D, Stankoviansky M, Szabó E, Szczesny B, Szwagrzyk J, Šimkovicová V, Tasekovich L, Tiner T, Trizna M, Urbánek J, Vološčuk I, Wyzga B, Zentai L (2007) Carpathian Environment Outlook. United Nations Environment Programme (UNEP), Geneva, 236 pp.
7. Bălțeanu D, Stan-Sion A, Cheval S, Trandafir P, Dobre B, Râmniceanu V, Dragne D, Micu M, Damian N, Costache A. 2004. Natural and technological hazards in Romania. A tornado event at Făcaeni, August 12, 2002. Its causes, consequences, perception, and mangement. Edit. Telegrafia, București, 56 p. (In Romanian).
8. Cheval S. (ed.) (2003), Indices and quantitative methods in climatology. Edit. Universității din Oradea, 120 p. (In Romanian)

Relevant peer-review scientific publications (45 papers in ISI indexed journals)

1. Lakatos M, Szentes O, Kalin KC, Nimac I, Kozjek K, Cheval S, Dumitrescu A, Irașoc A, Stepanek P, Farda A et al (2021) Analysis of Sub-Daily Precipitation for the PannEx Region. *Atmosphere* 12, 838. <https://doi.org/10.3390/atmos12070838>.
2. Tudose NC, Marin M, Cheval S, Ungurean C, Davidescu SO, Tudose ON, Mihalache AL, Davidescu A (2021) SWAT Model Adaptability to a Small Mountainous Forested Water-shed in Central Romania. *Forests* 12: 860. <https://doi.org/10.3390/f12070860>.
3. Antal A, Guerreiro PMP, Cheval S (2021) Comparison of spatial interpolation methods for estimating the precipitation distribution in Portugal. *Theoretical and Applied Climatology*. <https://doi.org/10.1007/s00704-021-03675-0>.
4. Bates AE, Primack RB, Duarte CM (...) Cheval S, (...) (2021) Global COVID-19 lockdown highlights humans as both threats and custodians of the environment. *Biological Conservation* 109175. <https://doi.org/10.1016/j.biocon.2021.109175>.
5. Matzarakis A, Cheval S, Lin TP, Potchter O (2021) Challenges in Applied Human Biometeorology. *Atmosphere* 12: 296. <https://doi.org/10.3390/atmos12030296>.
6. Micu DM, Amihaesei V, Miliian N, Cheval S (2021) Recent changes in temperature and precipitation indices in the Southern Carpathians, Romania (1961-2018). *Theoretical and Applied Climatology*. <https://doi.org/10.1007/s00704-021-03560-w>.
7. Micu DM, Dumitrescu A, Cheval S, Nita I-A, Birsan M-V (2021) Temperature changes and elevation-warming relationships in the Carpathian Mountains. *International Journal of Climatology* 41(3): 2154-2172. <https://doi.org/10.1002/joc.6952>.
8. Cheval S, Haliuc A, Antonescu B, Tișcovschi F, Dobre M, Tătui F, Dumitrescu A, Manea A, Tudorache G, Irimescu A, Birsan M-V, Mock C (2021) Enriching the historical meteorological information using Romanian language newspaper reports: a database from 1880 to 1900. *International Journal of Climatology* 41: E458-E562, <https://doi.org/10.1002/joc.6709>.
9. Cheval S, Popa A-M, Șandric I, Iojă I-C (2020) Exploratory analysis of cooling effect of urban lakes on land surface temperature in Bucharest (Romania) using Landsat imagery. *Urban Climate* 34, 100696. <https://doi.org/10.1016/j.uclim.2020.100696>.
10. Žak M, Niță A, Dumitrescu A, Cheval S (2020) Influence of synoptic scale atmospheric circulation on the development of urban heat island in Prague and Bucharest. *Urban Climate* 34, 100681. <https://doi.org/10.1016/j.uclim.2020.100681>.
11. Cheval S, Dumitrescu A, Amihaesei V-A (2020) Exploratory Analysis of Urban Climate Using a Gap-Filled Landsat 8 Land Surface Temperature Data Set. *Sensors*, 20, 5336. <https://doi.org/10.3390/s20185336>.

12. Andrei S, Andrei MD, Huștiu M, Cheval S, Antonescu B (2020) Tornadoes in Romania-from Forecasting and Warning to Understanding Public's Response and Expectations. *Atmosphere*, 11, 966. <https://doi.org/10.3390/atmos11090966>.
13. Cheval S, Dumitrescu A, Adamescu M, Cazacu C (2020) Identifying climate change hotspots relevant for ecosystems in Romania. *Climate Research* 80: 165-173. <https://doi.org/10.3354/cr01603>.
14. Cheval S, Adamescu MC, Georgiadis, T. Herrnegger M. Piticar A, Legates DR (2020) Observed and Potential Impacts of the COVID-19 Pandemic on the Environment. *International Journal of Environmental Research and Public Health*, 17: 4140, <https://doi.org/10.3390/ijerph17114140>.
15. Dumitrescu A, Brabek M, Cheval S (2020) Statistical Gap-Filling of SEVIRI Land Surface Temperature. *Remote Sensing*, 12, 1423; doi: <https://doi.org/10.3390/rs12091423>.
16. Cheval S, Micu D, Dumitrescu A, Irimescu A, Frighenciu M, Iojă C, Tudose NC, Davidescu Ș, Antonescu B (2020) Meteorological and Ancillary Data Resources for Climate Research in Urban Areas. *Climate*, 8, 37, doi: 10.3390/cli8030037.
17. Dumitrescu A, Cheval S, Guijarro JA (2019) Homogenization of a combined hourly air temperature dataset over Romania. *International Journal of Climatology*, doi: 10.1002/joc.6353.
18. Cremades R, Mitter H, Tudose NC, Sanchez-Plaza A, Graves A, Broekman A, Bender S, Giupponi C, Koundouri P, Bahri M, Cheval S, Cortekar J, Moreno Y, Melo O, Karner K, Ungurean C, Davidescu SO, Kropf B, Brouwer F, Marin M (2019) Ten principles to integrate the water-energy-land nexus with climate services for co-producing local and regional integrated assessments. *Science of the Total Environment* 693: 133662, doi: 10.1016/j.scitotenv.2019.133662.
19. Cheval S, Constantin S (2019) Black Sea impact on its west-coast land surface temperature. *Theoretical and Applied Climatology* 135(3-4): 1583-1593, doi: 1007/s00704-018-2454-0.
20. Moldovan OT, Constantin S, Cheval S (2018) Drip heterogeneity and the impact of decreased flow rates on the vadose zone fauna in Ciur-Izbuc Cave, NW Romania. *Ecohydrology* 11(8): UNSP e2028, doi: 10.1002/eco.2028.
21. Cheval S, Dumitrescu A (2017) Rapid daily and sub-daily temperature variations in an urban environment. *Climate Research* 73: 233-246, doi: 10.3354/cr01481.
22. Cheval S, Dumitrescu A, Birsan M-V (2017) Variability of the aridity in the South-Eastern Europe over 1961-2050. *Catena* 151: 74-86, doi: 10.1016/j.catena.2016.11.029.
23. Nistor M-M, Cheval S, Gualtieri AF, Dumitrescu A, Boțan VE, Berni A, Hognogi H, Irimus A, Porumb-Ghiurco CG (2017) Crop evapotranspiration assessment under climate change in the Pannonian basin during 1991–2050. *Meteorological Applications* 24: 84-91, doi: 10.1002/met.1607.
24. Nistor M-M, Gualtieri AF, Cheval S, Dezsi S, Boțan VE (2016) Climate change effects on crop evapotranspiration in the Carpathian Region from 1961 to 2010. *Meteorological Applications* 23: 554–561, doi: 10.1002/met.1570.
25. Constantinescu D, Cheval S, Caracaș G, Dumitrescu A (2016) Effective Monitoring and Warning of Urban Heat Island Effect on the Indoor Thermal Risk in Bucharest (Romania). *Energy and Buildings* 127: 452-468, doi: j.enbuild.2016.05.068.
26. Nistor M, Dezsi S, Cheval S, Baciu M (2016) Climate change effects on groundwater resources: a new assessment method through climate indices and effective precipitation in Beliș district, Western Carpathians. *Meteorological Applications* 23: 462-469, doi: 10.1002/met.1578.
27. Constantin S, Cheval S (2016) Automated Geodata processing for Black Sea Influence Assessment on the Land Surface Temperature. *Environmental Engineering and Management Journal* 15(2): 405-411.
28. Sîrodov I, Cheval S, Dumitrescu A, Merciu C, Vaidianu N, Paraschiv M, Schvab A, Saghin I, Prefac Z (2015) Contribution of the Built-up Space to the Creation of Urban Heat Island in Bucharest Municipality. *Journal of Environmental Protection and Ecology* 16(4): 1337–1343.
29. Cheval S (2015) The Standardized Precipitation Index – an overview. *Romanian Journal of Meteorology* 12(1-2): 17-64.
30. Nistor M-M, Dezsi S, Cheval S (2015) Vulnerability of groundwater under climate change and land cover: a new spatial assessment method applied on Beliș district (Western Carpathians, Romania). *Environmental Engineering and Management Journal* 14(12): 2959-2971.
31. Cheval S, Dumitrescu A (2015) The summer surface urban heat island of Bucharest (Romania) retrieved from MODIS images. *Theoretical and Applied Climatology* 121(3): 631-640, doi: 10.1007/s00704-014-1250-8.
32. Spinoni J, Szalai S, Szentimrey T, Lakatos M, Bihari Z, Nagy A, Németh Á, Kovács T, Mihic D, Dacic M, Petrovic P, Kržič A, Hiebl J, Auer I, Milkovic J, Štěpánek P, Zahradníček P, Kilar P, Limanowka D, Pyrc R, Cheval S, Birsan M-V, Dumitrescu, A, Deak G, Matei M, Antolovic I, Nejedlík P, Štastný P, Kajaba P, Bochníček O, Galo D, Mikulová K, Nabyvanets Y, Skrynyk O, Krakovska S, Gnatiuk N, Tolasz R, Antofie T, Vogt, J (2015) Climate of the Carpathian Region in the period 1961–2010: climatologies and trends of 10 variables. *International Journal of Climatology* 35(7): 1322-1341, DOI: 10.1002/joc.4059.

33. Cheval S, Busuioc A, Dumitrescu A, Birsan MV (2014) Spatio-temporal variability of meteorological drought in Romania using the standardized precipitation index (SPI). *Climate Research* 60(3): 235-248, DOI: 10.3354/cr01245.
34. Birsan MV, Dumitrescu A, Micu DM, Cheval S (2014) Changes in annual temperature extremes in the Carpathians since AD 1961. *Natural Hazards* 74(3):1899-1910. DOI: 10.1007/s11069-014-1290-5.
35. Cheval S, Birsan MV, Dumitrescu A (2014) Climate variability in the Carpathian Mountains region over 1961-2010. *Global and Planetary Change* 118: 85-96, DOI: 10.1016/j.gloplacha.2014.04.005.
36. Bădescu V, Gueymard C, Cheval S, Oprea C, Baci M, Dumitrescu A, Iacobescu F, Miloş I, Rada C (2013) Accuracy and sensitivity analysis for 54 models of computing hourly diffuse solar irradiation on clear sky. *Theoretical and Applied Climatology*, 111(3-4): 379-399, DOI: 10.1007/s00704-012-0667-1.
37. Bădescu V, Gueymard C, Cheval S, Oprea C, Baci M, Dumitrescu A, Iacobescu F, Miloş I, Rada C (2013) Accuracy analysis for fifty-four clear-sky solar radiation models using routine hourly global irradiance measurements in Romania. *Renewable Energy*, 55: 85-103, doi: 10.1016/j.renene.2012.11.037.
38. Vespremeanu-Stroe A, Cheval S, Tătui D (2012) The wind regime of Romania – Characteristics, trends and North Atlantic oscillation influences. *Forum Geografic*, XI(2): 118-126, DOI: <http://dx.doi.org/10.5775/fg.2067-4635.2012.003.d>.
39. Venema VKC, Mestre O, Aguilar E, Auer I, Guijarro JA, Domonkos P, Vertacnik G, Szentimrey T, Stepanek P, Zahradnick P, Viarre J, Muller-Westermeier G, Lakatos M, Williams CN, Menne M, Lindau R, Rasol D, Rustemeier E, Kolokythas K, Marinova T, Andresen L, Acquaotta F, Fratianni S, Cheval S, Klancar M, Brunetti M, Gruber C, Prohom Duran M, Likso T, Esteban P, Brandsma T (2012) Benchmarking homogenization algorithms for monthly data. *Climate of the Past*, 8: 89-115. doi: 10.5194/cp-8-89-2012.
40. Bădescu V, Gueymard C, Cheval S, Oprea C, Baci M, Dumitrescu A, Iacobescu F, Miloş I, Rada C (2012) Computing global and diffuse solar hourly irradiation on clear sky. Review and testing of 54 models. *Renewable and Sustainable Energy Reviews*, 16: 1636-1656. doi:10.1016/j.rser.2011.12.010.
41. Burcea S, Cheval S, Dumitrescu A, Antonescu B, Bell A, Breza T (2012) Comparison Between Radar Estimated and Rain Gauge Measured Precipitation in the Moldavian Plateau. *Environmental Engineering and Management Journal*, 11(4): 723-731.
42. Cheval S, Baci M, Dumitrescu A, Breza T, Legates DR, Chendeş V (2011) Climatologic adjustments to monthly precipitation in Romania. *International Journal of Climatology*, 31: 704-714.
43. Cheval S, Dumitrescu A, Petrişor AI. 2011. The July Surface Temperature Lapse in the Romanian Carpathians. *Carpathian Journal of Earth and Environmental Sciences*, 6: 189-198.
44. Cheval S, Bădescu V, Gueymard C, Oprea C, Baci M, Dumitrescu A, Miloş I, Rada C, Breza T. 2011. Preparation of a large testing procedure for models of clear sky solar irradiance computation under the climate of Romania. *Annals of the Academy of Romanian Scientists. Series on Science and Technology of Information*, 4(2): 43-50.
45. Petrişor A, Cheval S, Zinevici V, Parpala L. 2011. Geostatistical Analysis of Time Series: An Exploratory Analysis of Climatologic and Ecological Data using a Spatial Instrument. *Journal of Applied Quantitative Methods*, 6(1): 80-87, http://www.jaqm.ro/issues/volume-6,issue-1/pdfs/9_petrisor_cheval_zinevici_parpala.pdf
46. Parajka J, Kohnová S, Bálint G, Barbuc M, Borga M, Claps P, Cheval S, Dumitrescu A, Gaume E, Hlavcová K, Merz R, Pfaundler M, Stancalie G, Szolgay J, Blöschl G. 2010. Seasonal characteristics of flood regimes across the Alpine-Carpathian range. *Journal of Hydrology*, 394(1-2): 78-89. DOI: 10.1016/j.jhydrol.2010.05.015.
47. Chendeş V, Cheval S, Dumitru S. 2010. The Assessment of Some Hydrometeorological Drought Indices in the Bend Subcarpathians and Peripheral Zones. *Research Journal of Agricultural Science*, 42 (3): 60-70.
48. Busuioc A, Dumitrescu A, Baci M, Cazacioc L, Cheval S. 2010. RCM performance in reproducing temperature and precipitation regime in Romania. Application for Banat Plain and Oltenia Plain, *Romanian Journal of Meteorology*, 10(2): 1-19.
49. Cheval S, Dumitrescu A, Bell A. 2009. The urban heat island of Bucharest during the extreme high temperatures of July 2007. *Theoretical and Applied Climatology*, 97: 391-401.
50. Cheval S, Dumitrescu A. 2009. The July urban heat island of Bucharest as derived from MODIS images. *Theoretical and Applied Climatology*, 96(1-2): 145-153.
51. Margelli F, Rossi S, Cheval S, Georgiadis T. 2009. Water and energy interaction in urban planning. *Bolletino Geofisico*, XXXII(3-4): 55-78.
52. Săndulache C, Cheval S. 2009. Atmospheric precipitations – risk phenomena in Parâng Mountains. *Comunicări de Geografie*, XIII: 103-112. (in Romanian).

53. Popa I, Cheval S. 2007. Early winter temperature reconstruction of Sinaia area (Romania) derived from tree-rings of silver fir (*abies alba mill.*). *Romanian Journal of Meteorology*, **9**(1-2): 47-54.
54. Zak M, Cheval S, Dumitrescu A, Kveton V. 2007. MODIS-based investigations on the urban heat islands of Bucharest (Romania) and Prague (Czech Republic). *Joint 2007 EUMETSAT Meteorological Satellite Conference and the 15th Satellite Meteorology & Oceanography Conference of the American Meteorological Society, Amsterdam, The Netherlands, 24-28 Sept 2007* http://www.eumetsat.int/website/home/News/ConferencesandEvents/DAT_2042918.html
55. Cheval S, Breza T, Baci M, Bostan D. 2006. Extreme precipitations in the South Dobroudja Plateau (Romania). The rainfall event from August 28, 2004. *Riscuri și catastrofe*, **V**(3): 83-92 (In Romanian).
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Selected Research Projects (2003-2020) and Role in the Project

| Project title (Acronym) / webpage | Funding agency | Role in the project | Time interval |
|--|---|--|---------------|
| Climate Change Initiative extension (CCI+) Phase 1 – new Essential Climate Variables (ECVs) Land Surface Temperature (LST- CCI) http://cci.esa.int/lst | European Space Agency (ESA) | Responsible Expert (National Meteorological Administration) | 2018-2021 |
| Developing resilience and tolerance of crop resource use efficiency to climate change and air pollution (SUSCAP) https://www.suscrop.eu/projects-first-call/suscap | SusCrop- ERA-NET | Expert ("Henri Coandă" Air Force Academy, Brașov, Romania) | 2019-2022 |
| Climate Services for the Water-Energy-Land Nexus (CLISWELN) https://www.hzg.de/ms/clisweln/index.php.en | JPI Climate | Expert (National Institute for Research and Development in Forestry "Marin Drăcea") | 2017-2020 |
| Nature-based solutions for increasing cities resilience and sustainability (NATURB) http://ccmesi.ro/?page_id=666 | PNCDI PN III (PCE) Executive Agency for Higher Education, Research, Development and Innovation Funding (UEFISCDI) | Expert (University of Bucharest) | 2017-2019 |
| Experimental Methods for Ecosystems Services Assessment of Urban Lakes under Climate Changes (EMERSA) http://ccmesi.ro/?page_id=39 | PNCDI PN III (PED) Executive Agency for Higher Education, Research, Development and Innovation Funding (UEFISCDI) | Expert (University of Bucharest) | 2017-2018 |
| Reducing urban heat island effects to improve urban comfort and balance energy consumption in Bucharest (REDBHI) https://www.uauim.ro/cercetare/redbhi/ | PNCDI PN II, Parteneriate | Co-Principal Investigator/ Project Director (National Meteorological Administration) | 2014-2017 |
| Urban Heat Island Monitoring under Present and Future Climate (UCLIMESA) http://uclimesa.meteoromania.ro/ | National-Romanian Spatial Agency (ROSA) | Principal investigator/Project Director | 2013-2015 |
| Mitigating Vulnerability of Water Resources under Climate Change (CC-WARE) https://www.caware.eu/ | SEE Programme | Co-Principal Investigator/ Project Director (National Meteorological Administration) | 2012-2014 |

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|---|----------------|---|-----------|
| Promotion and coordination of environmental research in Central and Eastern Europe for a sustainable Development (PROCEED) | EU-FP7 | Co-Principal Investigator (National Institute for Research and Development in Environmental Protection) | 2011-2013 |
| Climate of the Carpathian Region (CARPATCLIM) http://www.carpatclim-eu.org/pages/home/ | JRC | Co-Principal Investigator (National Institute for Research and Development in Environmental Protection) | 2010-2013 |
| Hydrometeorological Data Resources and Technologies for Effective Flash Flood Forecasting (HYDRATE) | FP6 | Senior Researcher | 2007-2010 |
| Understanding the Dynamics of the Coupled Systems (DYNAMITE) | FP6 | Senior Researcher | 2005-2006 |
| Integrated Remote Monitoring Techniques for Urban Heat Island (IRMOTUHI) | EUFAR- FP6 | Principal Investigator (National Meteorological Administration) | 2007-2008 |
| Comfort and energetic efficiency in the buildings by using renewable energy (CEER) | National -CEEX | Co-Principal Investigator (National Meteorological Administration) | 2006-2008 |
| Defining, evaluating and zoning of the risk in the Romania's forestry (CLIDOIN) | National -CEEX | Co-Principal Investigator (National Meteorological Administration) | 2006-2008 |
| Climate change impact on Holocene and present dynamic of the Alpine environment in the Romanian Carpathians. Consequences in risk and landscape management (MEDALP) | National -CEEX | Co-Principal Investigator (National Meteorological Administration) | 2006-2008 |
| Indice sintetic pentru caracterizarea riscurilor climatice prin utilizarea tehnicilor GIS | CNCSIS | Director de proiect (Institutul de Geografie al Academiei Române) | 2002-2003 |