



PERSONAL INFORMATION

NAME MIRCEA MIHAELA (MAIDEN NAME MOISOI)
 ADDRESS 29, VIA GOBETTI, 40129, BOLOGNA, ITALY
 TELEPHONE +39 051 6098650
 FAX +39 051 6098675
 E-MAIL mihaela.mircea@enea.it
 WEB SITE <https://met.sspt.enea.it/people/mihaela-mircea>
 NATIONALITY Romanian
 DATE OF BIRTH 05,12,1968
 GENDER Female
 SCOPUS AUTHOR ID: 6603063133
 RESEARCH GATE Mihaela Mircea

WORK EXPERIENCE

DATES (FROM – TO) NAME AND ADDRESS OF EMPLOYER TYPE OF BUSINESS OR SECTOR OCCUPATION OR POSITION HELD MAIN ACTIVITIES AND RESPONSIBILITIES	APRIL 2009 –PRESENT Atmospheric Pollution Laboratory (INAT), Models and Technologies for Risk Reduction Division (MET), Department of Sustainability (SSPT), Italian National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA), Via Martiri di Monte Sole 4, 40129, Bologna, Italy Research Researcher (Permanent position) Air quality model development and studies at national and European scales, Emission models for fires and for volatile organic compounds from vegetation, Quantification of Saharan dust contribution to air quality, Air quality in support to health, crops, ecosystems and cultural heritage impact evaluations, Air quality forecast, Air quality and climate change interactions, Ecosystem impact on air pollution in urban areas.
DATES (FROM – TO) NAME AND ADDRESS OF EMPLOYER TYPE OF BUSINESS OR SECTOR OCCUPATION OR POSITION HELD MAIN ACTIVITIES AND RESPONSIBILITIES	FEBRUARY 1998-APRIL 2009 Atmospheric Processes, Institute of Atmospheric Sciences and Climate, Italian National Research Council, 101, Via Gobetti, 40129, Bologna, Italy Research Researcher (Visiting Scientist) Development of microphysical models for aerosol growth and activation, development of scavenging models for aerosols and gases in- and below-clouds, study aerosol-climate interactions, Development anthropogenic emissions processor and an online air quality model (BOLCHEM)
DATES (FROM – TO) NAME AND ADDRESS OF EMPLOYER TYPE OF BUSINESS OR SECTOR OCCUPATION OR POSITION HELD MAIN ACTIVITIES AND RESPONSIBILITIES	SEPTEMBER 1992-FEBRUARY 1998 Atmospheric Physics Laboratory, National Institute of Meteorology and Hydrology, Bucharest, Romania, 97, Șos. București-Ploiești, sector 1, 013686, Bucharest, Romania Research Researcher (Permanent position) Development of 1D cloud model with explicit microphysics, Air quality studies with puff models (INPUFF)

EDUCATION

DATES (FROM – TO) NAME AND TYPE OF ORGANISATION PROVIDING EDUCATION AND TRAINING TITLE OF QUALIFICATION AWARDED	April 2002 Faculty of Mathematical, Physical and Natural Sciences, University of Bologna, Italian Minister of Instruction, University and Research Recognition of Romanian Ph.D
DATES (FROM – TO) NAME AND TYPE OF ORGANISATION PROVIDING EDUCATION AND TRAINING PRINCIPAL SUBJECTS/OCCUPATIONAL SKILLS COVERED TITLE OF QUALIFICATION AWARDED	January 1996-December 2000 Faculty of Physics, University of Bucharest Thesis: "Contributions to the microphysical modelling of clouds and precipitation" Ph.D

<p>DATES (FROM – TO)</p> <p>NAME AND TYPE OF ORGANISATION PROVIDING EDUCATION AND TRAINING</p> <p>TITLE OF QUALIFICATION AWARDED</p> <p>• DATES (FROM – TO)</p> <p>NAME AND TYPE OF ORGANISATION PROVIDING EDUCATION AND TRAINING</p> <p>PRINCIPAL SUBJECTS/OCCUPATIONAL SKILLS COVERED</p> <p>TITLE OF QUALIFICATION AWARDED</p> <p>TRAINING</p>	<p>October 2000</p> <p>Faculty of Mathematical, Physical and Natural Sciences, University of Bologna, Italian Minister of Instruction, University and Research</p> <p>Recognition of Romanian MSc degree</p> <p>1987-1992</p> <p>Faculty of Physics, University of Bucharest</p> <p>Thesis: "Cloud model with entrainment"</p> <p>MSc degree</p> <p>Hamburg Aerosol Model (HAM) Workshop, Hamburg, 27-28 November 2006.</p> <p>Modelling the effect of aerosol chemical composition on warm cloud droplet activation, ACCENT Activity 2nd Annual Meeting, Manchester, February 23rd – 24th 2006.</p> <p>ACCENT cloud-modelling meeting during First ACCENT Symposium, Urbino, 12-16 September 2005.</p> <p>Summer School "Lectures on Planetary Boundary Layer and Air Pollution Modeling", Castro-Marina, Lecce, Italy, 1-5 October 2001.</p> <p>Workshop on "Theory and Modelling of Chemistry Climate Interactions", ICTP, Trieste, Italy, 29 May – 9 June 2000.</p> <p>NATO ASI "Buoyant Convection in Geophysical Flows", Pforzheim, 17 - 27 March 1997.</p> <p>4th International Cloud Modelling Workshop, Clermont - Ferrand, France, 12 - 16 August 1996</p> <p>Course on Geophysical Fluid Dynamics, Trieste, Italy, 22 April-10 May 1996.</p> <p>European Research Course on Atmospheres, Grenoble, France, 10 January - 9 February 1994.</p>
<p>PERSONAL SKILLS AND COMPETENCES</p> <p>MOTHER TONGUE</p> <p>OTHER LANGUAGES</p> <p>• READING SKILLS</p> <p>• WRITING SKILLS</p> <p>• VERBAL SKILLS</p> <p>• READING SKILLS</p> <p>• WRITING SKILLS</p> <p>• VERBAL SKILLS</p>	<p>ROMANIAN</p> <p>ITALIAN</p> <p>ADVANCED</p> <p>ADVANCED</p> <p>FLUENT</p> <p>ENGLISH</p> <p>ADVANCED</p> <p>ADVANCED</p> <p>FLUENT</p>
<p>ORGANISATIONAL SKILLS AND COMPETENCES</p>	<p>Good experience in assigning priorities, planning skills and time management, timetabling and working to deadlines acquired in national (MINNI, AEROCLOUDS) and European (MINATROC, PHOENICS, SMOCC, QUEST, MAP, ACCENT, GEMS, EURODELTA 3) research projects.</p> <p>Member of Local Organising Committee "14th International Conference on Clouds and Precipitation" - ICCP2004, Bologna (Italy) 18-23 July 2004, Italy</p> <p>Member of Local Organising Committee of Workshop "Modellistica della qualità dell'aria: l'aerosol atmosferico", 29 January 2014, Bologna, Italy and</p> <p>Member of Local Organising Committee of 15th Task Force on Measurement and Modelling Meeting, Bologna (Italy), 8-10 April 2014.</p>
<p>TECHNICAL SKILLS AND COMPETENCES</p>	<p>Good experience with operative systems: WINDOWS 98, XP, 7, 8, 10, LINUX and MAC OS, with programming languages: FORTRAN 77 and 90, with script in UNIX shell BASH, graphic software: NCL-NCAR, GRADS, GNU PLOT, CORELDRAW, SURFER, SIGMAPLOT and other software: LATEX, WORD, EXCEL, ADOBE ACROBAT, OPENOFFICE acquired through the development and application of different kind of atmospheric models and through writing scientific paper and research projects.</p>
<p>JOB RELATED SKILLS AND EXPERTISE</p>	<p>Able to plan, design and carry out projects independently and with others colleagues in the field of Environment, Meteorology, Atmospheric Physics, Climate, Aerosols, Air Quality.</p>
<p>COMMUNICATION SKILLS</p>	<p>Experience in team-working, both as part of a group and as coordinator of the scientific activities</p> <p>Work closely with colleagues with different expertise, nationalities and cultural backgrounds.</p> <p>Several articles published and confident in addressing different audiences (See Appendix)</p>

ADDITIONAL INFORMATION

REVIEWER ACTIVITY

Research Projects:

- National Council of Research Norway during 2003;
- Romanian Minister of Education and Research since 2005 (CEEX Experts database).
- Deutsche Forschungsgemeinschaft (DFG), which serves as the central public funding organisation responsible for promoting research in Germany;
- SBO-programme-the abbreviation of "Strategisch Basis Onderzoek": Strategic Basic Research in Belgium.
- Member of the Scientific Committee for Air Quality Italian Network of Special Monitoring Stations Project sponsored by the Italian Ministry for the Environment, the Territory and the Sea nominated on 24 June 2011.
- Request availability 2.02.2015 from European Commission for evaluation of proposals submitted in response to a call of proposals launched under Horizon 2020 – the main European Commission funding instrument for research", topic SC5-4-2015: Improving air quality and reducing carbon footprint of European cities." – invitation declined due to long administrative procedure in ENEA.
- Evaluator for Marie Skłodowska-Curie Individual Fellowships (MSCA-IF) 2016 and 2017 calls.

International Scientific Journals since 1999:

1) Atmospheric Environment; 2) Journal of Geophysical Research-Atmospheres; 3) Tellus B; 4) Atmospheric Research; 5) Geophysical Research Letters; 6) Atmospheric Chemistry and Physics. 7) Environmental Pollution; 8) Journal of Aerosol Science; 9) Journal of Environmental Management, 10) Meteorology and Atmospheric Physics; 11) Atmosphere, 12) Energy Policy, 13) Pure and Applied Geophysics, 14) Acta Geophysica.

SCIENTIFIC EVALUATION

H-index given by Web of Science 15 December 2017 for author MIRCEA M: 24

H-index given by Research Gate 15 December 2017 for author MIRCEA M: 30

Co-author of two articles in Nature:

O'Dowd, C.D., Facchini, M.C., Cavalli, F., Ceburnis, D., Mircea, M., Decesari, S., Fuzzi, S., Yoon, Y.J. and Putaud, J.-P. Biogenically-driven organic contribution to marine aerosol. *Nature*, 431, 676-680, 2004.

Facchini, M.C., Mircea, M., Fuzzi, S. and Charlson, R.J. Cloud albedo enhancement by surface-active organic solutes in growing droplets, *Nature*, 401, 257-259, 1999.

European Commission Evaluation of Principal Investigator (Mircea M.) in the Framework of FP7-IDEAS:

ERC-2007-StG 202711-1:

Principal Investigator: Potential to perform world class research: 3.88/5 (ERC Evaluation Report)

Quality of the proposed research project (3.88/5 (ERC Evaluation Report)

ERC-2009-StG 239967:

Principal Investigator: 2.33/4

Research Project: 2.0/4

FP7-PEOPLE-2009-IEF 253659

Scientist in charge Mircea M.:

Total project scores: 72.20/100

PROFESSIONAL ACTIVITIES AND MEMBERSHIP

National expert contributing to EMEP (The European Monitoring and Evaluation Programme) Task Force on Measurements and Modelling (TFMM) activities since 2009 (TFMM is a forum of discussion under EMEP and Convention on Long-range Transboundary Air Pollution (LRTAP) signed in the framework of UNECE (United Nations Economic Commission for Europe)).

National expert contribution to Forum for air quality modelling in Europe (FAIRMODE) since 2011. http://fairmode.jrc.ec.europa.eu/document/fairmode/fairmode_national_experts_confirmed2015.pdf

Member of Italian Aerosol Society since August 2013 (<http://www.iasaerosol.it/en/contact-us>)

RESEARCH PROJECTS

Participant in EU projects:

MINATROC (MINeral dust And TROpospheric Chemistry: 2000-2003)

PHOENICS (Particles of Human Origin Extinguishing Natural solar radiation In Climate Systems: 2002-2005)

QUEST (Quantification of Aerosol Nucleation in the European Boundary Layer: 2001-2004)

SMOCC (Smoke Aerosols, Clouds, Rainfall and Climate: Aerosols from Biomass Burning Perturb Global and Regional Climate: 2001-2004)

MAP (Marine Aerosol Production: Primary & Secondary Marine Aerosol Production from Natural Sources: 2005-2008)

GEMS (Global and regional Earth-system Monitoring using Satellite and in-situ data: 2005-2009)

ACCENT (Atmospheric Composition Change. The European Network of Excellence: 2004-2009)

EUCAARI (European Integrated project on Aerosol Cloud Climate and Air Quality interactions: 2007-2011)

EURODELTA 3 Inter-comparison exercise involving some important models used for AQ policy applications in Europe. This activity contributing to the scientific work of the UNECE Task Force on Measurement and Modelling (TFMM) under the Convention on Long-range Transboundary Air Pollution (CLRTAP) (2012-2015).

National projects:

MINNI (Integrated National Model in support to the International Negotiation on Air Pollution) project 2010-2013

Accordo di Collaborazione per l'avvio delle reti speciali di cui al D.Lgs. 155/2010, sottoscritto da MATTM, CNR, ENEA, ISS 2012-2015. Attività prevista all'articolo 2, comma 1, lettera N) "WP. 3 Sviluppo di metodologie e delle relative procedure che consentano di determinare i contributi alle concentrazioni degli inquinanti in aria ambiente derivanti da fonti naturali, quali i composti organici volatili dalla vegetazione e le sabbie".

Attività relativa al cap. 2.9.2 del Piano Operativo di Dettaglio (MATTM-DVA-2011-0020017 del 4/8/2011) "Sviluppo di metodologie e delle relative procedure che consentano di determinare i contributi delle sabbie sahariane alle concentrazioni di particolato.-WP3.1".

Accordo di collaborazione MATTM-DVA, CNR-IIA ed ENEA: Attività Internazionali 2014-2017

WP1.3. Analisi di sensitività di situazioni di inquinamento atmosferico acuto in Pianura Padana alle condizioni meteorologiche utilizzando sia dati sperimentali, meteorologici e di qualità dell'aria sia il sistema modellistico atmosferico AMS-MINNI

Bilateral Agreement for TECHNICAL SUPPORT FOR WASTE MANAGEMENT, AIR QUALITY AND POLLUTION FROM PERSISTENT ORGANIC POLLUTANTS between Italian Ministry of Foreign Affairs and Italian National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA)

CONVENZIONE PER L'ASSISTENZA TECNICA IN MATERIA DI GESTIONE DEI RIFIUTI, QUALITA' DELL'ARIA E INQUINAMENTO DA PERSISTENT ORGANIC POLLUTANTS tra Ministero degli Affari Esteri - Direzione Generale per la Cooperazione allo Sviluppo (MAE) e Agenzia nazionale per le nuove tecnologie, l'energia e lo sviluppo economico sostenibile (ENEA)

INVITED SEMINARS

Air pollution modelling: an overview, 10 December 2013, Rome, Course on Exposure assessment in air pollution epidemiology and Health Impact Assessment in the framework of VIIAS project.

Emissions in the atmosphere: effects on air quality and climate, 21 September 2010, Scuola di Dottorato in Scienze della Terra e dell'Ambiente, University of Bologna.

Knowledge of aerosol properties: a prerequisite for understanding aerosol-climate interactions", 10 giugno 2005, Istituto Nazionale di Geologia e Vulcanologia, Via Donato Creti 12, Bologna, Italia;

"Precipitation scavenging coefficient: parameterizations and limitations", 12 febbraio 1999, Laboratoire de Meteorology Physique, Observatoire de Physique du Globe de Clermont Ferrand, France;

"Rappresentazione delle nubi in modelli di inquinamento a scala regionale", 19 gennaio 1999, Centro di ricerca -ENEL Milano, Italy;

“Physico-chemical modelling of hydrometeor composition”, 18 giugno 1998, FISBAT – CNR, Bologna, Italy).

SPECIAL DISSEMINATION ACTIVITY

Final Conference MINNI project – 17-18 aprile 2013, Roma

Oral presentations:

Inquinamento atmosferico: valutazione multi annuale con il sistema modellistico AMS-MINNI, MIHAELA MIRCEA, ENEA (UTVALAMB) - Laboratorio Qualità dell’Aria
<http://www.minni.org/conferenza-finale-minni/agenda-interventi-i-giornata>

Aerosol carbonioso e polveri sahariane: confronto simulazioni/osservazioni per diverse configurazioni del sistema modellistico AMS-MINNI, MIHAELA MIRCEA, ENEA (UTVALAMB) - Laboratorio Qualità dell’Aria
<http://www.minni.org/conferenza-finale-minni/agenda-interventi-ii-giornata>

Newsletters: <http://www.minni.org/pubblicazioni/newsletter>

Mircea, M., Calori, G. 2010. Multiannual assessment of air pollution in Italy with AMS-MINNI model and monitoring data, Minni. NL. 6, September 2010.

Mircea, M. 2012. Saharan dust, Minni. NL. 10, January 2012.

Mircea, M., Silibello, C., 2012. Atmospheric Heavy Metals pollution in Italy, Minni. NL. 12, February 2012.

Mircea, M., Righini, G., Finardi, S. 2012 Wildfires air quality impact Minni. NL. 13, February 2012.

Mircea, M., Silibello, C., 2012. POPs, Minni. NL. 14, February 2012.

Mircea, M., Cappelletti, A. 2012 Verification of AMS-MINNI developments against Trisaia field campaign, Minni. NL. 16, November 2012.

ANNEXES

A:List of publications in peer reviewed journals

1. **Mircea, M.**, and Stefan, S. Polydisperse aerosol influence on the scavenging coefficient, *Aerosols Journal*, 40, 278-282, 1998.
2. **Mircea, M.**, and Stefan, S. A study of the wet and dry ground deposition using a Langragian puff model, *Romanian Reports in Physics*, 50, No.1-2, 67, 1998.
3. **Mircea, M.**, and Stefan, S. A theoretical study of the microphysical parameterization of the scavenging coefficient as a function of precipitation type and rate, *Atmos. Environ.*, 32, 2931- 2938, 1998.
4. Facchini, M.C., **Mircea, M.**, Fuzzi, S. and Charlson, R.J. Cloud albedo enhancement by surface-active organic solutes in growing droplets, *Nature*, 401, 257-259, 1999.
5. Facchini M.C., Decesari, S., **Mircea, M.**, Fuzzi, S. and Loglio, G. Surface tension of atmospheric wet aerosol and cloud/fog droplets in relation to their organic carbon content and chemical composition, *Atmos. Environ.*, 34, 4853-4857, 2000.
6. **Mircea, M.**, Stefan, S., and Fuzzi, S. Precipitation scavenging coefficient: influence of measured aerosol and raindrop size distributions, *Atmos. Environ.*, 34, 5169-5174, 2000.
7. Fuzzi, S., Decesari, S., Facchini, M.C., Matta, E., **Mircea, M.**, and Tagliavini, E. A symplified model of the water soluble organic component of atmospheric aerosol. *Geophys. Res. Lett.*, 20, 4079-4082, 2001.
8. Decesari, S., Facchini, M.C., Matta, E., Lettini, F., **Mircea, M.**, Fuzzi, S., Tagliavini, E., and Putaud, J.-P. Chemical features and seasonal trend of water soluble organic compounds in the Po Valley fine aerosol, *Atmos. Environ.*, 35, 3691-3699, 2001.
9. Facchini, M.C., **Mircea, M.**, S. Fuzzi and R.J. Charlson, Comments on: Influence of soluble surfactant properties on the activation of aerosol particles containing inorganic solute, *J. Atmos. Sci.*, 58, 1465-1467, 2001.
10. Fuzzi, S., Facchini, M.C., Decesari, S., Matta, E., **Mircea, M.** Soluble organic compounds in fog and cloud droplets: what we have learned in the past few years? *Atmos. Res.* , 64, 89-98, 2002.
11. **Mircea M.**, Facchini, M.C., Decesari, S., Fuzzi, S., and Charlson, R.J. The influence of the organic aerosol component on CCN supersaturation spectra for different aerosol types. *Tellus*, 54B, 74-81, 2002.
12. Decesari, S., Facchini, M.C., Matta, E., **Mircea, M.**, Fuzzi, S., Chughtai, A. R., and Smith, D. M. Water soluble organic compounds formed by oxidation of soot, *Atmos. Environ.*, 36, 1827-1832, 2002.
13. Stefan, S. and **Mircea, M.**, Sensitivity of the precipitation scavenging coefficient of nitric acid vapor to raindrop size distribution.

14. Decesari, S., Facchini, M.C., **Mircea, M.**, Cavalli, F., and Fuzzi, S. Solubility properties of surfactants in atmospheric aerosol and cloud/fog water samples, *J. Geophys. Res.*, 108, 4685, Doi: 10.1029/2003JD003566, 2003.
15. Gobbi, G. P., Barnaba, F., Van Dingenen, R., Putaud, J.P., **Mircea M.** and Facchini, M.C. Lidar and in-situ observations of continental and Saharan aerosol: closure analysis of particles optical and physical properties, *Atmos. Chem. Phys.*, 3, 2161-2172, 2003.
16. Matta, E., Facchini, M.C., Decesari, S., **Mircea, M.**, Cavalli, F., Fuzzi, S., Putaud, J.-P., and Dell'Acqua, A. Mass closure on the chemical species in size-segregated atmospheric aerosol collected in an urban area of the Po Valley, Italy, *Atmos. Chem. Phys.*, 3, 623-637, 2003.
17. O'Dowd, C.D., Facchini, M.C., Cavalli, F., Ceburnis, D., **Mircea, M.**, Decesari, S., Fuzzi, S., Yoon, Y.J. and Putaud, J.-P. Biogenically-driven organic contribution to marine aerosol. *Nature*, 431, 676-680, 2004.
18. Cavalli, F., Facchini, M.C., Decesari, S., **Mircea, M.**, Emblico, L., and Fuzzi, S., Ceburnis, D., Yoon, Y.J., O'Dowd, C.D., Putaud, J.-P and Dell'Acqua, A., Advances in characterization of size resolved organic matter in marine aerosol in North Atlantic, *J. Geophys. Res.*, 109, D24215, doi:10.1029/2004JF005137, 2004.
19. **Mircea, M.**, Stefan, S., Facchini, M.C., and Fuzzi, S. Analytical formulas for the below-cloud scavenging coefficient of an irreversibly soluble gas: a quantitative evaluation for HNO₃, *Int. J. Environment and Pollution*, 21, 547-565, 2004.
20. Gaman, A.I., Kulmala, M., Vehkamäki, H., Naspari, I., **Mircea, M.**, Facchini, M.C., Laaksonen, A. Binary homogeneous nucleation in water-succinic acid and water-glutaric acid systems, *J. Chem.Phys.*, 120, 282-291, 2004.
21. **Mircea, M.**, Facchini, M.C., Decesari, S., Cavalli, F., Emblico, L., Fuzzi, S., Vestin, A., Rissler, J., Swietlicki, E., Frank, G., Andreae, M.O., Maenhaut, W., Rudich, Y., Artaxo, P. Importance of the organic aerosol fraction for modeling aerosol hygroscopic growth and activation: a case study in the Amazon Basin, *Atmos. Chem. Phys.*, 5, 3111-3126, 2005.
22. Cavalli, F., Facchini, M. C., Decesari, S., Emblico, L., **Mircea, M.**, Jensen, N. R. and Fuzzi, S. Size-segregated aerosol chemical composition at a boreal site in southern Finland, during the QUEST project, *Atmos. Chem. and Phys.*, 6, 993-1002, 2006.
23. B. Svenningsson, J. Rissler, E. Swietlicki, **Mircea, M.**, M. Bilde, M. C. Facchini, S. Decesari, S. Fuzzi, J. Zhou, J. Mønster¹, and T. Rosenørn, Hygroscopic growth and critical supersaturations for mixed aerosol particles of inorganic and organic compounds of atmospheric relevance, *Atmos. Chem. Phys.*, 6, 1937–1952, 2006.
24. Decesari, S., Fuzzi, S., Facchini, M. C., **Mircea, M.**, Emblico, L., Cavalli, F., Maenhaut, W., Chi, X., Schkolnik, G., Falkovich, A., Rudich, Y., Claeys, M., Pashynska, V., Vas, G., Kourchev, I., Vermeylen, R., Hoffer, A., Andreae, M. O., Tagliavini, E., Moretti, F. and Artaxo, P., Characterization of the organic composition of aerosols from Rondonia, Brazil, during the LBA-SMOCC 2002 experiment and its representation through model compounds. *Atmos. Chem. and Phys.*, 6, 375-402, 2006.
25. Mancinelli V, Rinaldi M, Finessi E, Emblico L, **Mircea, M.**, Fuzzi S, Facchini MC, Decesari S, An anion-exchange high-performance liquid chromatography method coupled to total organic carbon determination for the analysis of water-soluble organic aerosols, *Journal of Chromatography A*, 1149, 385-389, 2007.
26. Decesari, S., **Mircea, M.**, Cavalli, F., Moretti, F., Fuzzi, S., Tagliavini, E., Facchini, M.C. Source attribution of water soluble organic aerosol by nuclear magnetic resonance spectroscopy, *Environ.Sci.Technol.*, 41, 2479-2484, 2007.
27. Fuzzi, S., Decesari, S., Facchini, M.C., Cavalli, F., Emblico, L., **Mircea, M.**, Andreae, M.O., Trebs, I., Hoffer, A., Guyon, P., Artaxo, P., Rizzo, L., Lara, L., Pauliquevis, T., Maenhaut, W., Raes, N., Chi, X., Mayol-Bracero, O., Soto-García, L., Claeys, M., Kourchev, I., Rissler, J., Swietlicki, E., Tagliavini, E., Schkolnik, G., Falkovich, A., Rudich, Y., Fisch, G. and Gatti, L. Overview of the inorganic and organic composition of size-segregated aerosol in Rondonia, Brazil, from the biomass burning period to the onset of the wet season, *J. Geophys. Res.*, 112, D01201, doi:10.1029/2005JD006741, 2007.
28. Topping, D.O., McFiggans, G.B., Kiss, G., Varga, Z., Facchini, M. C., Decesari, S., **Mircea, M.** Surface tensions of multi-component mixed inorganic/organic aqueous systems of atmospheric significance: measurements, model predictions and importance for cloud activation predictions, *Atmos. Chem. and Phys.*, 7, 2371-2398, 2007.
29. Hamed, A., Joutsensaari, J., Mikkonen, S., Sogacheva, L., Dal Maso, M., Kulmala, M., Cavalli, F., Fuzzi, S., Facchini, M. C., Decesari, S., **Mircea, M.**, Lehtinen, K. E. J. and Laaksonen, A. Nucleation and growth of new particles in Po Valley, Italy, *Atmos. Chem. and Phys.*, 7, 355-376, 2007.
30. Facchini, M.C., Rinaldi, M., Decesari, S., Carbone, C., Finessi, E., **Mircea, M.**, Fuzzi, S., Ceburnis, D., Flanagan, R., Nilsson, E.D., de Leeuw, G., Martino, M., Woeltjen, J., O'Dowd, C.D., Primary submicron marine aerosol dominated by insoluble organic colloids and aggregates, *Geophysical Research Letters*, 35, 1714-1719, 2008.
31. Facchini, M.C., Decesari, S., Rinaldi, M., Carbone, C., Finessi, E., **Mircea, M.**, Fuzzi, S., Moretti, F., Tagliavini, E., Ceburnis, D., O'Dowd, C.D., Important source of marine secondary organic aerosol from biogenic amines, *Environ. Sci. Technol.*, 42, 9116-9121, 2008.
32. **Mircea, M.**, Massimo d'Isidoro, Alberto Maurizi, Lina Vitali, Fabio Monforti, Gabriele Zanini, Francesco Tampieri, A comprehensive performance evaluation of the air quality model BOLCHEM over Italy, *Atmos. Environ.*, 42, 1169-1185, 2008.

33. Jaatinen, A., Hamed, A., Joutsensaari, J., Mikkonen, S., Birmili, W., Wehner, B., Spindler, G., Wiedensohler, A., Decesari, S., **Mircea, M.**, Facchini, M.C., Junninen, H., Kulmala, M., Lehtinen, K.E.J., Laaksonen, A., A comparison of new particle formation events in the boundary layer at three different sites in Europe, *Boreal Environ. Res.*, 14, 4, 481-498, 2009.
34. Rinaldi, M., Decesari, S., Finessi, E., Carbone, C., **Mircea, M.**, Fuzzi, S., Ceburnis, D., O'Dowd, C.D., Facchini, M.C., Marine organic aerosol: characterization by proton nuclear magnetic resonance spectroscopy (H-1 NMR), *Geochimica et cosmochimica acta*, 73, A1102, 2009.
35. Rinaldi, M., Facchini, M. C., Decesari, S., Carbone, C., Finessi, E., **Mircea, M.**, Fuzzi, S., Ceburnis, D., Ehn, M., Kulmala, M., de Leeuw, G., and O'Dowd, C. D.: On the representativeness of coastal aerosol studies to open ocean studies: Mace Head – a case study, *Atmos. Chem. Phys.*, 9, 9635-9646, <https://doi.org/10.5194/acp-9-9635-2009>, 2009.
36. Pederzoli, A., **Mircea, M.**, Finardi, S., di Sarra, A., Zanini, G. Quantification of Saharan dust contribution to PM10 concentrations over Italy during 2003 – 2005, *Atmospheric Environment*, 44, 4181 -4190, 2010.
37. Carbone, C., Decesari, S., **Mircea, M.**, Giulianelli, L., Finessi, E., Rinaldi, M., Fuzzi, S. Marinoni, A., Duchi, R., Perrino, C., Sargolini, T., Vardè, M., Sprovieri, F., Gobbi, G.P., Angelini, F., Facchini, M.C. Size-resolved aerosol chemical composition over the Italian Peninsula during typical summer and winter conditions, *Atmospheric Environment*, 44, 5269 – 5278, 2010.
38. Silibello, C., Calori, G., Costa, M.P., Dirodi, M.G., **Mircea, M.**, Radice, P., Vitali, L., Zanini, G., Benzo[a]pyrene modelling over Italy: comparison with experimental data and source apportionment, *Atmospheric Pollution Research* 3, 399–407. DOI 10.5094/apr.2012.046, 2012.
39. Pizzigalli, C., R. Cesari, M. D'Isidoro, A. Maurizi and **M. Mircea**, . Modelling wildfires in the Mediterranean area during summer 2007 *IL NUOVO CIMENTO* Vol. 35 C, N. 5 Settembre-Ottobre 2012 DOI 10.1393/ncc/i,2012-11316-4, 2012.
40. Malaguti, A., **Mircea, M.**, La Torretta, T.M.G, Piersanti, A. Salvi, S., Zanini, G. Telloli, C. Salfi, F. Berico, M., Fine carbonaceous aerosol characteristics at a coastal rural site in the Central Mediterranean as given by OCEC online measurements, *Journal of Aerosol Science* 56, 78-87, 2013.
41. Ester Rita Alessandrini, Annunziata Faustini, Monica Chiusolo, Massimo Stafoggia, Martina Gandini, Moreno Demaria, etc. **Gruppo collaborativo EpiAir222** Air pollution and mortality in twenty-five Italian cities: results of the EpiAir2 Project, *Epidemiol Prev.*; 37 (4-5): 220-229, 2013.
42. Sara Di Lonardo, Daniela Nuvolone, Francesco Forastiere, Ennio Cadum, Alessandro Barchielli; etc, **Gruppo collaborativo EpiAir2**, Policies for the promotion of sustainable mobility and the reduction of traffic related air pollution in the cities participating in the EpiAir2 project, *Epidemiol Prev*; 37 (4-5): 242-251, 2013.
43. Cecilia Scarinzi, Ester Rita Alessandrini, Monica Chiusolo, Claudia Galassi, Marco Baldini, M etc, **Gruppo collaborativo EpiAir2**, Air pollution and urgent hospital admissions in 25 Italian cities: results from the EpiAir2 project *Epidemiol Prev*, 37 (4-5): 230-241, 2013.
44. **Mircea, M.**, Ciancarella, L., Briganti, G., Calori, G., Cappelletti, A., Cionni, I., Costa, M., Cremona, G., D'Isidoro, M., Finardi, S., Pace, G., Piersanti, A., Righini, G., Silibello, C., Vitali, L., and Zanini, G.. Assessment of the AMS-MINNI system capabilities to predict air quality over Italy for the calendar year 2005. *Atmos. Environ.* 48: 178–188, 2014.
45. Telloli, C., Malaguti, A. **Mircea, M.**, Tassinari, R., Vaccaro, C., Berico, M. (2014). Properties of agricultural aerosol released during wheat harvest threshing, plowing and sowing. *Journal of Environmental Sciences* 26 1903 – 1912, 2014.
46. Cesari, R., D'Isidoro, M., Maurizi, A., **Mircea, M.**, Monti, F., Pizzigalli, C., Tampieri, F., Modelling dispersion of smoke from wildfires in a Mediterranean area, *Int. J. Environment and Pollution*, Vol. 55, Nos. 1/2/3/4, 2014.
47. Adani, M., **Mircea, M.**, D'Isidoro, M., Costa, M., Silibello, C., (2015). Heavy Metals modelling study over Italy: effects of grid resolution, lateral boundary conditions and foreign emissions on air concentrations. *Water Air Soil Pollut.*, 226: 46 DOI 10.1007/s11270-015-2324-7, 2015.
48. Malaguti, A., **Mircea, M.**, La Torretta, T.M.G, G. Telloli, Petralia, E., Stracquadanio, M., Berico, M., Chemical Composition of Fine and Coarse Aerosol Particles in the Central Mediterranean Area during dust and Non-Dust Conditions *Aerosol and Air Quality Research*, 15: 410–425, 2015.
49. Antonella Malaguti, **Mihaela Mircea**, Teresa M.G. La Torretta, Chiara Telloli, Ettore Petralia, Milena Stracquadanio, Massimo Berico Comparison of Online and Offline Methods for Measuring Fine Secondary Inorganic Ions and Carbonaceous Aerosols in the Central Mediterranean Area *Aerosol and Air Quality Research*, 15: 2641–2653, 2015.
50. **Mircea, M.**, Grigoras, G. D'Isidoro, M., Righini, G., Adani, M., Briganti, G., Ciancarella, L., Cappelletti, A., Calori, G., Cionni, I., Cremona, G., Finardi, S., Larsen, B.R., Pace, G., Perrino, C., Piersanti, A., Silibello, C., Vitali, L., Zanini, G. (2015) Impact of grid resolution on aerosol predictions: a case study over Italy, *Aerosol and Air Quality Research*, 16: 1253–1267, 2016.
51. De Marco, A., Screpanti, A., **Mircea, M.**, Piersanti, A., Proietti, C., Fornasier, M.F. High resolution estimates of the corrosion risk for cultural heritage in Italy (2017) *Environmental Pollution*, 226, pp. 260-267, 2017.
52. Bessagnet, B., Pirovano, G., **Mircea, M.**, Cuvelier, C., Aulinger, A., Calori, G., Ciarelli, G., Manders, A., Stern, R., Tsyro, S., García Vivanco, M., Thunis, P., Pay, M.-T., Colette, A., Couvidat, F., Meleux, F., Rouil, L., Ung, A., Aksoyoglu, S., Baldasano, J.M., Bieser, J., Briganti, G., Cappelletti, A., D'Isidoro, M., Finardi, S., Kranenburg, R., Silibello, C., Carnevale, C., Aas, W., Dupont, J.-C., Fagerli, H., Gonzalez, L., Menut, L., Prévôt, A.S.H., Roberts, P., White, L. Presentation of the EURODELTA III intercomparison exercise-evaluation of

the chemistry transport models' performance on criteria pollutants and joint analysis with meteorology Atmospheric Chemistry and Physics, 16 (19), pp. 12667-12701, 2016.

53. Manes, F., Marando, F., Capotorti, G., Blasi, C., Salvatori, E., Fusaro, L., Ciancarella, L., **Mircea, M.**, Marchetti, M., Chirici, G., Munafò, M., Regulating Ecosystem Services of forests in ten Italian Metropolitan Cities: Air quality improvement by PM10 and O3removal, Ecological Indicators, 67, pp. 425-440, 2016.

54. Colette, A., Andersson, C., Manders, A., Mar, K., **Mircea, M.**, Pay, M.-T., Raffort, V., Tsyro, S., Cuvelier, C., Adani, M., Bessagnet, B., Bergström, R., Briganti, G., Butler, T., Cappelletti, A., Couvidat, F., D'Isidoro, M., Doumbia, T., Fagerli, H., Granier, C., Heyes, C., Klimont, Z., Ojha, N., Otero, N., Schaap, M., Sindelarova, K., Stegehuis, A.I., Roustan, Y., Vautard, R., Van Meijgaard, E., Garcia Vivanco, M., Wind, P. EURODELTA-Trends, a multi-model experiment of air quality hindcast in Europe over 1990-2010 (2017) Geoscientific Model Development, 10 (9), pp. 3255-327, 2017.

55. Vivanco, M.G., Bessagnet, B., Cuvelier, C., Theobald, M.R., Tsyro, S., Pirovano, G., Aulinger, A., Bieser, J., Calori, G., Ciarelli, G., Manders, A., **Mircea, M.**, Aksoyoglu, S., Briganti, G., Cappelletti, A., Colette, A., Couvidat, F., D'Isidoro, M., Kranenburg, R., Meleux, F., Menut, L., Pay, M.T., Rouil, L., Silibello, C., Thunis, P., Ung, A. Joint analysis of deposition fluxes and atmospheric concentrations of inorganic nitrogen and sulphur compounds predicted by six chemistry transport models in the frame of the EURODELTAIII project, Atmospheric Environment, 151, pp. 152-175, 2017.

56. Ghigo, S., Bande, S., Ciancarella, L., **Mircea, M.**, Piersanti, A., Righini, G., Baldasano, J.M., Basagaña, X., Cadum, E. Mapping air pollutants at municipality level in Italy and Spain in support to health impact evaluations (2017) Air Quality, Atmosphere and Health, pp. 1-14. Article in Press.

Book Chapter

Maurizi, A, D'Isidoro, M., **Mircea, M.**, BOLCHEM: An integrated system for atmospheric dynamics and composition in Integrated Systems of Meso-Meteorological and Chemical Transport Models, ISBN: 978-364213979-6, Publisher: Springer Berlin Heidelberg, DOI: 10.1007/978-3-642-13980-2_8, 89-94, 2011

Technical Reports

International

Co-author of MSC-W Technical Report 1/2014 "The EURODELTA III exercise: Model evaluation with observations issued from the 2009 EMEP intensive period and standard measurements in Feb/Mar 2009," B. Bessagnet, A. Colette, F. Meleux, L. Rouil, A. Ung, O. Favez, C. Cuvelier, P. Thunis, S. Tsyro, R. Stern, A. Manders, R. Kranenburg, A. Aulinger, J. Bieser, **M. Mircea**, G. Briganti, A. Cappelletti, G. Calori, S. Finardi, C. Silibello, G. Ciarelli, S. Aksoyoglu, A. Prévôt, M.-T. Pay, J. M. Baldasano, M. Garcia Vivanco, J. L. Garrido, I. Palomino, F. Martín, G. Pirovano, P. Roberts, L. Gonzalez, L. White, L. Menut, J.-C. Dupont, C. Carnevale, A. Pederzoli. http://emep.int/publ/reports/2014/MSCW_technical_1_2014.pdf

Augustin Colette, Wenche Aas, Lindsay Banin, Christine F. Braban, Martin Ferm, Alberto González Ortiz, Ilia Ilyin, Kathleen Mar, Marco Pandolfi, Jean-Philippe Putaud, Victor Shatalov, Sverre Solberg, Gerald Spindler, Oksana Tarasova, Milan Vana, Mario Adani, Paul Almodovar, Eva Berton, Bertrand Bessagnet, Pernilla Bohlin-Nizzetto, Jana Boruvkova, Knut Breivik, Gino Briganti, Andrea Cappelletti, Kees Cuvelier, Richard Derwent, Massimo D'Isidoro, Hilde Fagerli, Clara Funk, Marta Garcia Vivanco, Richard Haeuber, Christoph Hueglin, Scott Jenkins, Jennifer Kerr, Frank de Leeuw, Jason Lynch, Astrid Manders, **Mihaela Mircea**, Maria Teresa Pay, Dominique Pritula, Xavier Querol, Valentin Raffort, Ilze Reiss, Yelva Roustan, Stéphane Sauvage, Kimber Scavo, David Simpson, Ron I. Smith, Yuk Sim Tang, Mark Theobald, Kjetil Tørseth, Svetlana Tsyro, Addo van Pul, Sonja Vidic, Markus Wallasch, Peter Wind, Air pollution trends in the EMEP region between 1990 and 2012, ISBN, 978-82-425-2833-9 (printed), ISBN: 978-82-425-2834-6 (electronic), May 2016, EMEP/CCC-Report 1/2016.

Augustin Colette, Sverre Solberg, Maxime Beauchamp, Bertrand Bessagnet, Laure Malherbe, Cristina Guerreiro, The Eurodelta-Trends Modelling Team: A. Andersson, A. Colette, C. Cuvelier, A. Manders, K.A. Mar, **M. Mircea**, M.T. Pay, V. Raffort, S. Tsyro, M. Adani, R. Bergström, B. Bessagnet, G. Briganti, A. Cappelletti, F. Couvidat, M. D'Isidoro, H. Fagerli, N. Ojha, N. Otero, P. Wind Long term air quality trends in Europe, Contribution of meteorological variability, natural factors and emissionsETC/ACM Technical Paper 2016/7 January 2017 <http://acm.eionet.europa.eu/>

National

S.Finardi, M.Mircea, G.Righini (2011) Wildfire contribution to air quality: comparison of different modelling approaches, ARIANET R2011-16

S.Finardi, M.Mircea, G.Righini (2011) Analysis of PM10 measurements and comparison with model results during 2007 wildfire season

Mircea M., Righini, G., Ciancarella, L., Zanini, G.: WP3.1.1 Relazione sintetica sullo "stato dell'arte" delle metodologie adottate per quantificare il contributo delle polveri desertiche nel mondo ed, in particolare, in Europa e nel bacino Mediterraneo Data: May 2013

Mircea M., Briganti, G., D'Isidoro, M., Malaguti, A., Righini, G., Ciancarella, L., Zanini, G.: WP3.1.2 Relazione sintetica sulla disponibilità di dati e di strumenti modellistici adeguati per quantificare il trasporto di sabbie sahariane in Italia December 2013.

Mircea M., Briganti, G., D'Isidoro, M., Malaguti, A., Righini, Vitali, L., Piersanti, A., Cremona, G., Ciancarella, L., Zanini, G.: WP3.1.3 Relazione descrittiva e manuale di utilizzo delle procedure per l'identificazione e quantificazione del contributo delle sabbie sahariane alle

concentrazioni di PM10 May 2014.

Mircea M., Ciancarella, L., Zanini, G.: WP3.2.1 Relazione sintetica circa lo “stato dell’arte” dei modelli che stimano le emissioni di composti organici volatili biogenici December 2012.

Mircea M., Briganti, G., Cappelletti, A., Ciancarella, L., Zanini, G.: WP3.2.2 Sviluppo di un modello di emissione di composti organici volatili biogenici (BCOV) May 2013

Mircea M., Briganti, G., Cappelletti, A., Cremona, G., Ciancarella, L., Zanini, G WP3.2.3 Implementazione del modello di emissione di composti organici volatili biogenici in MINNI December 2013

Mircea M., Briganti, G., Cappelletti, A., Cremona, G., Ciancarella, L., Zanini, WP3.2.4 Applicazione di SMA-MINNI con il modello di emissione di composti organici volatili biogenici sull’Italia May 2014