

CURRICULUM VITAE

Nume si prenume: IORGA (GUGHEA) Gabriela

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Locul si data nasterii: Slatina, 09.11.1970

Titluri stiintifice: PhD (Titlul si anul sustinerii tezei: Contributions to the study of the radiative effects of the tropospheric aerosol at regional scale, 2007)

Pozitia actuala: lector universitar

Domenii de competenta:

proprietati fizice si optice ale aerosolului troposferic; impactul aerosolului asupra vizibilitatii si poluarii aerului; modelarea efectelor radiative ale aerosolului continand specii chimice absorbante si neabsorbante in troposfera; parametrizari ale microfizicii norilor si precipitatiilor; implementare date experimentale in studiile de modelare a activarii aerosolului troposferic, modelarea interactiei aerosol-nor-clima cu modele empirice si deterministe; indepartarea umeda si uscata a particulelor de aerosol din atmosfera si implicatii pentru modelele climatice globale, regionale si de calitatea aerului; caracterizarea si modelarea depunerilor atmosferice; schimbari radiative si climatice induse de factori antropici.

Cursuri tinute:

- Fizica mediului – in perioada 2000 ÷ 2009;
- Efecte climatice ale poluantilor – incepand din 2008;
- Fizica atmosferei si elemente de geofizica – incepand din 2010.

Organizatii profesional stiintifice: membru al Societatii Meteorologice Romane

Informatii suplimentare:

- Premii:

- Premiul **Universitatii din Bucuresti** pentru cele 3 articole publicate in anul 2007 in: 1. *Journal of Geophysical Research*, 112, D01204, doi: 10.1029/2005JD006828; 2. *Atmosfera*, 20 (3), 247-269; 3. *Revista de Chimie-Bucharest*, 58 (2), 171-178.

- Premiul **CNCSIS si UEFISCSU**, PN II-RU-PREC_{ISI}-2007-1, pentru articolul “Sensitivity of cloud albedo to aerosol concentration and spectral dispersion of cloud droplet size distribution”, *Atmosfera*, 20 (3), 247-269, 2007.
- Premiul **Universitatii din Bucuresti** pentru articolul “Humidity calibration system used for calibration of the hygrometers which measure the dew point between (-50,0...20,0) °Celsius”, *Revista de Chimie-Bucharest*, 10, 1007-1009, 2006.
- Premiul „Young Scientist (YSTA)” din partea **European Geosciences Union** pentru a prezenta rezultatele cercetarii din lucrarea “Sensitivity of cloud albedo to aerosol concentration and spectral dispersion of cloud droplet size distribution”, *Atmosfera*, 20 (3), 247-269, 2007, la EGU General Assembly 13-18 April 2008, Vienna, Austria, EGU2008-A-00042.
- Premiu din partea **European Science Foundation** la Fifth General Conference of the Balkan Physical Union, BPU-5, 25-29 August 2003, Vrnjacka Banja, Serbia si Muntenegru, poster “Shortwave radiative properties of clouds determined by the variation of cloud droplet number concentration”.
- Premiu din partea **International Global Change SysTem for Analysis, Research and Training (START)** Secretariat, Washington, DC, USA, pentru a participa la First International Young Scientists’ Global Change Conference, 16-20 Noiembrie 2003, Trieste, Italia, cu prezentarea orala “Effects of microphysics on the cloud albedo in climate models”.

- *Calificari:*

- EU Marie Curie Fellowship, Vienna University of Technology, Institute for Chemical Technologies and Analytics, Research Group of Environmental Analytical Chemistry, 2003-2004;
- Second ICTP Workshop on the Theory and Use of Regional Climate Models, Miramare-Trieste, Italia, 2004;
- ICTP Workshop on Climate Variability in the Twentieth Century (C20C), Trieste, Italia, 2004.

- *Consultant stiintific:*

- Pentru editia in limba romana a cartii « L'Univers et l'espace » editata sub titlul « Universul », traducere din limba franceza de catre Ana Andreescu, Editura RAO, Bucuresti, 2003, ISBN : 973 – 8175 – 59 – 3.
- Pentru editia in limba romana a cartii « Modern Physics » - autor Prof. Dr. Erich Übelacker, editata sub titlul « Fizica Moderna », traducere din limba germana de catre Mihai Moroiu, Editura RAO, Bucuresti, 2001, ISBN : 973 – 8175 – 39 – 9.

- *Proiecte de cercetare (incepand din 2003):*

1. Director de proiect Sources and Physico-Chemical Characteristics of atmospheric Aerosols at Central and East European sites (ARCEE), finantat de ANCS, Romania si WTZ Austria, 2009-2010.
2. Coordonator stiintific pentru domeniul Fizica atmosferei in proiectele:

- PN II 22/11.09.2007, Modernizarea si intretinerea infrastructurii CD pentru biogeochimia microelementelor (INFRABIM)
 - PN II 1006/ 2007, Modelarea unor mecanisme cheie implicate in mobilitatea metalelor in ecosisteme terestre si de zona umeda (MECOTER)
 - PN II 31012/14.09.2007, Procedura de fitoremediere si evaluare a riscului in zone contaminate cu metale (FITORISC)
 - PN II 31042/14.09.2007, Procedura de evaluare economica a retentiei poluantilor toxici stabili in sisteme fluviale (PECOTOX)
3. Membru in echipa de cercetare in proiectul finantat de Uniunea Europeana **FP5/EU_HPMT-CT-2001-00400**: Atmospheric Fine Particles – Formation, Transport and Impact, director de proiect: Prof. Dr. Hans Puxbaum (Viena, Austria), **Responsabil de tema**: Modelarea efectelor radiative ale aerosolului continand specii chimice absorbante si neabsorbante.
4. Membru in echipa de cercetare CEEEX PC-D06-PT22-309, Utilizarea tehnicilor Lidar si a teledetectiei satelitare in studiul impactului aerosolului atmosferic asupra variabilitatii climatice regionale (IMPAERO), 2005-2008.

- *Seminarii*:

- “Mechanisms of Climate Forcing by Aerosol – Theory and Modelling”, Vienna University of Technology, Vienna, Austria, Martie 26, 2004
- “Circulatia generala a aerului. Fortele care actioneaza in atmosfera”, Facultatea de Chimie, Universitatea din Bucuresti, Romania, Ian 12, 2007

Lista de lucrari - Carti:

- Iorga G., V. Iorga B. and Paun V. (2005) “Termodinamica si Fizica Moleculara – Lucrari practice de laborator”, Ed. Universitatii din Bucuresti, Bucuresti, Romania (ISBN: 973-737-116-X).
- Plosceanu C., Iorga B. and Gughea G., (1999) “Optica – culegere de probleme”, Ed. Universitatii din Bucuresti, Bucuresti, Romania (ISBN: 973-575-305-7).
- Gughea G. (2000) “Optics Laboratory” in Danciulescu C., Iorga B. and Gughea G. (2000) “Physics. Electricity, magnetism and optics”, Ed. Universitatii din Bucuresti, Bucuresti, Romania (ISBN: 973-575-470-3).

Lista de lucrari - Articole:

- *In jurnale cotate ISI:*

- **G. IORGA**, R. Hitznerberger, A. Kasper-Giebl, H. Puxbaum (2007) “Direct radiative effect modeled for regional aerosols in Central Europe including the effect of relative humidity”, *Journal of Geophysical Research*, 112, D01204, doi: 10.1029/2005JD006828;

- **G. IORGA**, S. Stefan (2007) “Sensitivity of cloud albedo to aerosol concentration and spectral dispersion of cloud droplet size distribution”, *Atmosfera*, 20 (3), 247-269;
 - R. Sandu, **G. IORGA**, E. Bacalum, V. Paun, (2007) “Cloud reflectivity and autoconversion rate: sensitivity to organic compounds for different aerosol types”, *Revista de Chimie-Bucharest*, 58 (2), 171-178;
 - V. Paun, **G. IORGA** (2006) “Humidity calibration system used for calibration of the hygrometers which measure the dew point between (-50,0...20,0) °Celsius”, *Revista de Chimie-Bucharest*, 10, 1007-1009;
 - G. Semencescu, C. Cioaca, B. Iorga, **G. GUGHEA** (2002) “Mediator role of some organic substances in the charge transfer on metal–electrolyte interface”, *Acta Chimica Slovenica*, 49, 121-138;
 - G. Semencescu, C. Cioaca, **G. GUGHEA**, B. Iorga (2002) “Phenomenological considerations rely on the double mixed electric layer model at the electrode – electrolyte interface”, *Acta Chimica Slovenica*, 49 (4) 743-754;
- In reviste recunoscute CNCSIS:
- **G. IORGA**, S. Stefan (2005) “Effects of aerosol on the optical properties of clouds”, *Romanian Reports in Physics* 57 (3), 426-435;
 - **G. IORGA**, S. Stefan, A. Olaru (2003) “Influence of sulfate aerosol particles on radiative properties of clouds”, *Romanian Reports in Physics* 55 (3), 287-302;
- In Proceedings:
- S. Stefan, **G. IORGA**, M. Zoran, “The atmospheric aerosols and their effects on cloud albedo and radiative forcing”, *Proceedings of 2nd Environmental Physics Conference, 18-22 February 2006, Alexandria, Egypt*;
 - S. Stefan, **G. IORGA**, “Effects of aerosol on the optical properties of clouds (Extended abstract)”, *Proceedings of 14th International Conference on Clouds and Precipitation, 18-23 July 2004, Bologna, Italy*;
 - S. Stefan, **G. IORGA**, “Clouds albedo dependence on numerical concentration of the cloud droplets”, *Proceedings of Annual Session of Scientific Communications of National Institute of Meteorology and Hydrology and of Romanian Meteorological Society, 10-12 June 2003, Bucharest, Romania*.

Martie 2009

Lect. dr. Gabriela IORGA