




## PERSONAL INFORMATION

## Octavian Micu

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Sex Male | Date of birth 26 Dec 76 | Nationality Romanian

## WORK EXPERIENCE

01 September 2011

**Scientific researcher III**

Institute of Space Science  
Atomistilor 409, 077125 Magurele (Romania)

Research in black holes physics, theoretical neutrino oscillations, physics beyond the standard model and extra-dimensions.

**Business or sector** Research and development

1 Jan 08 – 31 Oct 10

**Scientific Researcher/Postdoc**

Technische Universitat Dortmund  
Otto-Hahnstr. 4, 44221 Dortmund (Germany)

Research in black holes physics (black holes at the LHC problem), theoretical neutrino oscillations, physics beyond the standard model and extra-dimensions.

Taught quantum mechanics, intro to elementary particles and general relativity.

**Business or sector** University/Academia

1 Jun 06 – 31 Dec 07

**Lead Graduate Teaching Assistant**

University of Alabama  
514 University Blvd., 35487 Tuscaloosa (USA)

Research in black holes physics, and non-commutativity.

Taught Introductory Physics laboratories.

Designed new experiments along with the instructions/write ups to be used in the Studio Physics classes and ordered materials and equipment.

Coordinated the experiment and in class demonstrations setups with faculty, and the activities of other graduate teaching assistants.

**Business or sector** University/Academia

1 Jan 06 – 31 May 06

**Lecturer/Course Instructor**

University of Alabama  
514 University Blvd., 35487 Tuscaloosa (USA)

Taught Introductory Physics (PH-101) lectures in the Studio Physics format. Prepared course syllabus, lectured, held office hours, administered weekly homework, quizzes, and exams. Also graded homeworks, examinations, and awarded final grades.

**Business or sector** University/Academia

15 Aug 00 – 31 Dec 05

**Graduate Teaching Assistant**

University of Alabama  
514 University Blvd., 35487 Tuscaloosa (USA)

Research in black holes physics, and non-commutativity.

Taught Introductory Physics laboratories, graded lab reports, held office hours, administered quizzes, and laboratory exams.

Business or sector University/Academia

**EDUCATION AND TRAINING**

15 Aug 02 – 15 Dec 07 **Doctor of Philosophy**  
University of Alabama,  
Theoretical Physics

15 Aug 00 – 14 Aug 02 **Master of Science**  
University of Alabama,  
Theoretical Physics

1 Aug 95 – 30 Jun 00 **Physics Engineer Diploma**  
Babes-Bolyai University,  
Technological Physics

**PERSONAL SKILLS**

Mother tongue(s) Romanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
French	B2	B2	B1	A2	B1
Hungarian	B2	A2	B2	B1	A1
German	B1	A2	A2	A2	A1

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2: Proficient user  
[Common European Framework of Reference for Languages](http://www.cerl.eu)

Communication skills - Team oriented;  
- Good ability to adapt to multicultural environments, gained through my work and study experience on two continents;  
- Good communication skills gained through my experience as a teacher/lecturer.

Organisational / managerial skills - Leadership, quality developed while being a lead graduate teaching assistant (currently responsible for a small team of 2 people);  
- Good experience in project or team management, also developed while working as a lead GTA;

Job-related skills - Good problem solving skills developed during my years of working in scientific research;

Computer skills - Good knowledge of Mathematica, Maple, Matlab, Microsoft Office tools (Word, Excel, Powerpoint, MS Project), Latex on Windows, Linux and Mac OS operating systems;  
- Good knowledge of photo processing software (Adobe Lightroom and similar).

Other skills - Tennis;  
- Photography.  
- Salsa and Ballroom dancing (last 7 years).

Driving licence B

## ADDITIONAL INFORMATION

### Research Grants, Awards, Collaborations

#### Research grants:

Probing physics beyond the Standard Model with micro black holes and neutrinos, UEFISCDI, PN-II-RU-TE-2011-3-0184 (~220000 Euros)

#### Awards:

COST ACTION MP0905 - STSM Award: "On the possibility of stable charged black hole remnants at the LHC" short term scientific mission, Bologna U, Italy (November 2012).

COST ACTION MP0905 - STSM Award: "A search for micro black hole signatures" short term scientific mission, U. of Sussex, Brighton, UK (May 2012).

Outstanding Teaching by a Graduate Teaching Assistant, Univ. of Alabama, Tuscaloosa, AL, USA (March 2007);

Graduate Council Fellowship, Univ. of Alabama, Tuscaloosa, AL, USA (March 2007)

#### Collaborations:

Invited to become a member of the "Black holes in a violent Universe" working group funded by the European Cooperation in Science and Technology.

#### In the media:

"Theoretical survey of tidal-charged black holes at the LHC" by R. Casadio, B. Harms, S. Fabi, O. Micu. Paper featured on Discovery News: Man-made (but very tiny) black holes possible by I. O'Neill, Nov. 2009.

### Selected Publications

Back-to-Back Black Holes decay Signature at Neutrino Observatories, Nicusor Arsene, Xavier Calmet, Lauretiu Ioan Caramete, Octavian Micu. e-Print: arXiv:1303.4603 [hep-ph].

Charged Black Hole Remnants at the LHC, G.L. Alberghi, L. Bellagamba, X. Calmet, R. Casadio, O. Micu. Accepted for publication in Eur.Phys.J. C. arXiv:1303.3150 [hep-ph].

Minimum black hole mass from colliding Gaussian packets, R. Casadio, O. Micu, A. Orlandi. Eur.Phys.J. C72 (2012) 2146.

Quantum black holes from Cosmic Rays, X. Calmet, L.I. Caramete, O. Micu. JHEP 1211 (2012) 104.  
Brane-world black holes and the scale of gravity, G.L. Alberghi, R. Casadio, O. Micu, A. Orlandi. JHEP 1109 (2011) 023.

Affect of brane thickness on microscopic tidal-charged black holes, R. Casadio, B. Harms, O. Micu. Phys.Rev.D81:104024, 2010.

Exploring the bulk of tidal-charged micro-black holes, R. Casadio, O. Micu. Phys.Rev.D81:104024, 2010.

Theoretical survey of tidal-charged black holes at the LHC, R. Casadio, S. Fabi, B. Harms, O. Micu. JHEP 1002:079, 2010.

Neutrino-antineutrino oscillations as a possible solution for the LSND and MiniBooNE anomalies?, S. Hollenberg, O. Micu, H. Päs. Phys.Rev.D80:053010, 2009.

Baseline-dependent neutrino oscillations with extra-dimensional shortcuts, S. Hollenberg, O. Micu, H. Päs, T.J. Weiler. Phys.Rev.D80:093005.

Microscopic Black Holes as a Source of Ultrahigh-Energy Gamma-Rays, R. Casadio, B. Harms, O. Micu. Cosmology and Elementary Particle Physics 132- 140.

### Selected Talks

Non-thermal micro black hole decay searches in the UHECR and neutrino data. U of Alabama, Tuscaloosa AL, USA, May 2013.

Non-thermal micro black hole decay searches in the UHECR and neutrino data. Vanderbilt U., Nashville TN, USA. April 2013.

Possible searches for the non-thermal micro black holes back-to-back decay signature. NASA, Huntsville AL, USA, April 2013.

Possible searches for the non-thermal micro black holes back-to-back decay signature. "Seventh Gulf Coast Gravity Meeting", U of Mississippi, Oxford MS, USA, April 2013.

Where to search for the micro black holes back-to-back decay signature. "The biggest accelerators in Space and on Earth", CERN, March, 2013 – Invited talk.

Micro black holes @ the LHC and in the Cosmic Ray Data. "Black holes in a Violent Universe", Malta, April, 2012 – Invited talk.

Tidal charged black holes @ the LHC. "Black holes in a Violent Universe", MPI Bonn, April. 6, 2010.

On the possibility of tidal charged black holes @ the LHC. SINP, Kolkata, India, April. 6, 2010.

Explaining LSND and MiniBooNE using altered neutrino dispersion relations. LANL, USA, June. 12, 2009.

Explaining LSND and MiniBooNE using altered neutrino dispersion relations. M.I.T., USA, June. 8, 2009.

Explaining LSND using extra-dimensional shortcuts. SUSY '09, Northeastern U, USA, June. 7, 2009.

Explaining LSND and MiniBooNE using altered neutrino dispersion relations. Fermilab, USA, June. 5, 2009.