

PERSONAL INFORMATION

GRECU Alexandru Tudor



 Horia Hulubei National R&D Institute for Physics and Nuclear Engineering, 30 Atomistilor, RO-077125, Bucharest-Măgurele, Romania



 Skype

Sex Male

| Date of birth 14/11/1979

| Nationality Romanian

POSITION WITHIN THE PROJECT

Scientific Researcher Level 3, LHCb-Romania Deputy Team Leader

WORK EXPERIENCE

January 2013 – present

Scientific Researcher level 3

Horia Hulubei National R&D Institute for Physics and Nuclear Engineering, 30 Atomistilor, RO-077125, Bucharest-Măgurele, Romania (<http://www.nipne.ro>)

- Nonlinear mathematical physics; numerical simulation of discrete nonlinear systems
- High energy physics; Software development for Monte Carlo (MC) event generators in the LHCb software framework; Tuning/validation of MC generators
- Liaison between LHCb collaboration and HepData, and the Professor/RIVET collaboration (since Jan. 2015); LHCb internal reviewer in 2015/2016
- Server and workstation administration; Software development for the private computing cluster of the LHCb-Romania working group; Administrator of Torque-based computing clusters (LHCb privat cluster and LHCb dedicated GRID site) – since June 2018

Research and development

June 2011 – January 2013

Scientific Researcher

Horia Hulubei National R&D Institute for Physics and Nuclear Engineering, 30 Atomistilor, RO-077125, Bucharest-Măgurele, Romania (<http://www.nipne.ro>)

- Nonlinear mathematical physics; numerical simulation of discrete nonlinear systems
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Research and development

December 2003 – June 2011

Assistent Scientific Researcher

Horia Hulubei National R&D Institute for Physics and Nuclear Engineering, 30 Atomistilor, RO-077125, Bucharest-Măgurele, Romania (<http://www.nipne.ro>)

- Study of nonlinear physics phenomena; numerical simulation of discrete nonlinear systems
- since June 2007 I'm member of the LHCb collaboration at CERN, Geneva – development of first web application used by LHCb to organize and manage the detector control shifts (2008-2010); elementary particle physics; tuning and validation of MC event generators
- Web software development
- Server and workstation administration

Research and development

EDUCATION AND TRAINING

- October 2007 – May 2011 **PhD in Physics** Level 8

University of Bucharest, Bucharest, Romania

 - Study of collective nonlinear phenomena in plasma physics; Statistical methods in applied nuclear physics; Astrophysics; The standard model of the elementary particles and its extensions
- October 2003 – March 2005 **Masters of Science (physics)** Level 7

University of Bucharest, Bucharest, Romania

 - Condensed matter physics; conduction models in high resistivity materials; numerical simulations of conduction phenomena; organic polymer and liquid crystal physics
- October 1998 – June 2003 **Physics Engineer (Physics licentiate)**

University of Bucharest, Bucharest, Romania

 - Introduction to operator and vectorial algebra, complex calculus, mathematical physics; Physics of thermodynamic, optic, electromagnetic phenomena; electrodynamics and relativity theory; analytical mechanics; quantum physics; atomic physics; condensed matter physics; nuclear and high energy physics

PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C2	C1	C1	C2
Italian	B1	B2	B1	B1	B1
French	A1	A2	A1	A1	A1

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

Communication skills ■ good communication skills gained by attending various physics conferences and their social programme, during work stages in European scientific research centres (CERN) or while fulfilling scientific tasks as member of the LHCb international collaboration at CERN, Geneva

Organisational / managerial skills ■ good organisational skills gained through personal experience as technical editor of the physics journal „Romanian Journal of Physics” (www.nipne.ro/rjp), occasionally as invited editor of numbers of the afore-mentioned journal and since January 2015 as co-convenor of the softQCD sub-working group part of the QEE (QCD, Electroweak and Exotica physics) physics working group from the LHCb collaboration at CERN, Geneva

Job-related skills ■ good command of quality control processes involved in micro-production of high-end technology dedicated to elementary particle physics experiments (gained during two work stages in 2005-2006 at INFN Sezione di Roma, contributing to the construction of a sector of the electromagnetic calorimeter for the CMS detector at LHC, CERN)

Digital competence

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Proficient user	Independent user	Independent user	Proficient user	Proficient user

Levels: Basic user - Independent user - Proficient user
[Digital competences - Self-assessment grid](#)

- Other computer skills**
- good command of office production suite (word processor, spread sheet, presentation software) Open/LibreOffice and Microsoft Office
 - good command of photo editing software and professional DTP (LaTeX) gained as technical editor of a physics journal
 - proficient programmer using languages Visual Basic, C/C++, Python, PHP, Javascript and fast learner of new programming languages; skills are gained during specific scientific research and DTP activities
- Other skills**
- Inorganic chemistry; electrical engineering; design/implementation of Ethernet networks; astrophysics

ADDITIONAL INFORMATION
Publications
 (latest most relevant 5 publications)

1. R. Aaij, A. Greco *et al.* (LHCb Collab.)
 „Observation of the decay $B_s^0 \rightarrow \eta_c \Phi$ and evidence for $B_s^0 \rightarrow \eta_c \pi^+ \pi^-$ ”,
 JHEP 07 (2017) 021, LHCb-PAPER-2016-056
2. R. Aaij, A. Greco *et al.* (LHCb Collab.)
 „Observation of J/ψ p Resonances Consistent with Pentaquark States in $\Lambda_b^0 \rightarrow J/\psi K^+ p$ Decays”,
 Phys. Rev. Lett. 115 (2015) 072001
3. V. Khachatryan, A. Greco *et al.* (CMS & LHCb Collab.)
 „Observation of the rare $B_s^0 \rightarrow \mu^+ \mu^-$ decay from the combined analysis of CMS and LHCb data”,
 NATURE 522 (2015) 68-72
4. R. Aaij, A. Greco *et al.* (LHCb Collab.)
 „Measurement of the exclusive Y production cross-section in pp collisions at $\sqrt{s}=7$ TeV and 8 TeV”,
 JHEP 09 (2015) 084
5. Ana Elena Dumitriu, A. T. Greco
 „RIVET Plug-in for $Z^0 \rightarrow e^+ e^-$ Production Cross-section Measurement in pp Collisions at $\sqrt{s} = 7$ TeV”,
 Rom. Journ. Phys. 60 (2015) 415-428

Presentations

- “Gauge Boson Physics in the Forward Region at LHCb” & “Impact of LHCb Results on the Tuning of Monte Carlo Generators”, A.T. Greco (on behalf of LHCb Collab.), QCD@LHC, ETH & Univ. of Zuerich, Zuerich, Switzerland, August 22-26, 2016
- “Soft QCD Measurements at LHCb”, A. T. Greco (on behalf of LHCb Collab.), 20th International Conference on Particles and Nuclei (PANIC 14), Hamburg, Germania, August 25 – 29, 2014
- „Studies of Soft QCD at LHCb”, Alexandru T. Greco (on behalf of the LHCb collaboration) Large Hadron Collider Physics 2013 (LHCP 2013), Barcelona, Spania, May 13-18, 2013
- „Statistical Approach of Modulational Instability for Cylindrical and Spherical NLS Equations”, A. T. Greco, S. De Nicola, R. Fedele, D. Greco, A. Visinescu
 7th General Conference of the Balkan Physics Union (BPU-7), Alexandroupolis, Greece, September 9-13, 2009

Conferences
 (co-organizer)

- „2nd National Conference on Theoretical Physics”, Universitatea Ovidius Constanța, Romania, August 26-29, 2004