

Biographical Information

Name **Tijana Prodanović**
Date of birth 14.12.1978.
Place of birth Novi Sad, Serbia
Citizenship Republic of Serbia

Current Position and Institution

Full Professor
Department of Physics, Faculty of Sciences
University of Novi Sad
Trg Dositeja Obradovića 4, 21000 Novi Sad
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Education

Graduation Date October 2006.
Degree **Doctor of Philosophy**, astrophysics
Thesis title *„Probing and Raising the Lithium Problems With Hadronic Gamma Rays and Cosmic-Ray Nucleosynthesis“*
Institution University of Illinois at Urbana-Champaign, USA
2001-2006.

Graduation Date May 2003.
Degree **Master of Science**, astrophysics
Institution University of Illinois at Urbana-Champaign, USA
2001-2006.

Graduation Date Jun 2001.
Degree **Bachelor degree in astrophysics**
Institution University of Belgrade, Serbia
1997-2001.

Research Areas

Nuclear and particle astrophysics, Nucleosynthesis, Cosmic rays, Gamma-ray astronomy, Structure formation, Chemical evolution, Cosmology

Teaching

Teaching assistant at University of Illinois at Urbana-Champaign:

- Astronomy 402: Theoretical Astrophysics, fall2002
- Astronomy 100: Perspectives in Astronomy, spring 2003
- Astronomy 121: The Solar System, fall 2003
- Astronomy 122: Stars and Galaxies, spring 2005 („Teaching excellence award“)

Lecturer at University of Illinois at Urbana-Champaign:

- Astronomy 100: Discovering the Universe, summer II 2006 („Teaching excellence award“)

Professor at Physics Department, Faculty of Sciences, University of Novi Sad

- Head of the astronomy-astrophysics program

- BSc of astronomy-astrophysics course: Spectroscopy of the Universe
- BSc of astronomy-astrophysics course: Cosmic Microwave Background
- BSc of astronomy-astrophysics course: Interstellar Medium
- MSc of astronomy-astrophysics course: Radio astronomy
- MSc of astronomy-astrophysics course: Astroparticle physics
- PhD studies of physics course: Nuclear Astrophysics

Lecturer at Astromundus international masters program:

- MSc of astronomy-astrophysics course: Introduction to Nuclear and Particle Astrophysics

Visiting Professor at University of Ljubljana, Slovenia

- Academic studies of Physics course: Theoretical astrophysics

Science Communication and Popularization

- Winner of national [FameLab](#) contest in 2008 for the best young science communicator, and [first runner up](#) at the International FameLab contest 2008 held at Cheltenham Science Festival in Great Britain.
- National coordinator of the project „[She is an Astronomer](#)“, and participant of the [Cosmic Diary](#) project, both of which were one of the cornerstone projects under the International Year of Astronomy 2009
- Head of the marketing team of the Faculty of Sciences at University of Novi Sad from 2010-2018
- Member of organizing and program committee for the Novi Sad Science Festival in 2009 and 2010, the program director of the same Festival from 2011-2014. and Director of the same festival in 2015, as well as program coordinator for [Researchers Night Novi Sad](#) since 2010.
- Participant at the Novi Sad Science Festival every year since 2009 and Belgrade Science Festival in 2008 and 2009, and Researchers Night Serbia since 2010.
- Coordinator of the science communication project in astronomy titled „Meet the Universe“ supported by the Ministry of Science and Technological Development, Serbia, in 2009, 2012 and 2013.
- President of the scientific committee of [Astronomical Society of Novi Sad](#) (ADNOS)
- Member of editorial board of the popular science magazine „[Astronomski Magazin](#)“
- Given numerous popular science lectures by invitation and Research Station Petnica, Astronomy Camp Letenka, and many primary and secondary schools and city cultural centers in different cities across the country (Zrenjanin, Kikinda, Ivanjica, Beograd, Niš etc.) as well as outside the country (Science Festival at Sinj, Croatia)
- Speaker at the [TEDxYouth@ISB](#) event held in Belgrade in 2011. and [TEDx Karlovacka Gimnazija](#) held in 2016.
- Author of a paper titled “Ten Commandments for Presentations“, published at [Communicating Astronomy with the Public Journal \(2009\), 9, 19](#). Same article was then reprinted at Astronomical Society of the Pacific magazine [Mercury](#).
- Completed a 3-day Masterclass training in presentation and science communication skills organised by British Council, held in Belgrade, and given by [Quentin Cooper](#), British radio and TV presenter.
- Completed a 1-day Masterclass in presentation and science communication skills organised by British Council, held in Cheltenham, UK, and given by [Malcome Love](#), famous British trainer in presentation skills.
- Organized and led 2-day „[Science Communication Workshop](#)“ designed for researchers and University lecturers in order to improve their presenting skills in different occasions (conference talks, public lectures, media encounters)
- Writes science articles for [The Politika](#), the oldest Serbian daily newspapers
- National Outreach Contact person for Serbia for International Astronomical Union
- Program coordinator at Center for the Promotion of Science 2015/2016

List of Refereed Publications

1. "On Non-Primordial Deuterium Production by Accelerated Particles"
Tijana Prodanović, Brian D. Fields
The Astrophysical Journal (2003), **597**, 48-56
2. "The Pionic Contribution to Diffuse Gamma Rays: Upper Limits "
Tijana Prodanović, Brian D. Fields
Astroparticle Physics (2004), **21**, 627-635
3. "Probing Primordial and Pre-Galactic Lithium with High-Velocity Clouds"
Tijana Prodanović, Brian D. Fields
The Astrophysical Journal Letters (2004), **616**, 115-118
4. "Lithium-6 and Gamma Rays: Constraints on Primordial Lithium, Cosmic Rays and Cosmic Star Formation"
Tijana Prodanović, Brian D. Fields
Nuclear Physics A (2005), **758**, 799c-802c
5. "Structure Formation Cosmic Rays: Identifying Observational Constraints"
Tijana Prodanović , Brian D. Fields
Serbian Astronomical Journal (2005), **170**, 33-45
6. "Lithium-6 and Gamma Rays: Complementary Constraints on Cosmic-Ray History"
Brian D. Fields, Tijana Prodanović
The Astrophysical Journal (2005), **623**, 877-888
7. "Diffuse Gamma-Rays From the Galactic Plane: Probing the 'GeV Excess' and Identifying the 'TeV Excess' "
Tijana Prodanović, Brian D. Fields, John F. Beacom
The Astroparticle Physics (2007), **27**, 10
8. "Can Galactic Cosmic Rays Account for Solar 6Li Without Overproducing Gamma Rays"
Tijana Prodanović, Brian D. Fields
The Astrophysical Journal Letters (2006), **645** , L125-L128
9. „Cosmological Cosmic Rays: Sharpening the Primordial Lithium Problem“
Tijana Prodanović, Brian D. Fields
Physical Review D (2007), **76**, 083003
10. „FUSE Deuterium Observations: A Strong Case For Galactic Infall “
Tijana Prodanović, Brian D. Fields
Journal of Cosmology and Astroparticle Physic (2008), **9**,003
11. „The Deuterium Abundance in the Local Interstellar Medium“
Tijana Prodanović, Gary Steigman, Brian D. Fields
Monthly Notices of the Royal Astronomical Society (2010), **406**, 1108
12. "Cosmic Gamma-Ray Background from Star-Forming Galaxies"
Brian D. Fields, Vasiliki Pavlidou, Tijana Prodanović
Astrophysical Journal Letters (2010), **722**, L199
13. " Galactic Fly-Bys: New Source of Lithium Production "
Tijana Prodanović, Tamara Bogdanović i Dejan Urošević
Physical Review D (2013), **87**, 103014

14. "Diffuse Pionic Gamma-Ray Emission from Large-Scale Structures in the Fermi Era"
Aleksandra Dobardžić, Tijana Prodanović
Astrophysical Journal (2014), **782**, 109
15. „Possible Breaking of the FIR-Radio Correlation in Tidally Interacting Galaxies “
Darko Donevski, Tijana Prodanović
Monthly Notices of the Royal Astronomical Society (2015), **453**, 638
16. "Neutrino Constraints to the Diffuse Gamma-Ray Emission from Accretion Shocks"
Aleksandra Dobardžić, Tijana Prodanović
Astrophysical Journal (2015), **806**, 184
17. "Interstellar medium structure and the slope of the Sigma-D relation of supernova remnants", Petar Kostić, Branislav Vukotić, Dejan Urošević, Bojan Arbutina i Tijana Prodanović, *Monthly Notices of Royal Astronomical Society*, 461, 1421 (2016)
18. "Millisecond pulsar origin of the Galactic center excess and extended gamma-ray emission from Andromeda – a closer look"
Christopher Eckner, Xian Hou, Pasquale Serpico, Miles Winter, Gabrijela Zaharijas, Pierrick Martin, Mattia di Mauro, Nestor Mirabal, Jovana Petrović, Tijana Prodanović and Justin Vandenbrouck
Astrophysical Journal (2018), **862**, 13

Other Publications

1. "Cosmic Ray Nucleosynthesis And Lithium Problems"
Tijana Prodanović
National Monograph
Publications of the Astronomical Observatory of Belgrade (2008), **83**, 1-75
2. "New Metallicity Independent Constraints of Galactic Infall From Deuterium Observations"
Tijana Prodanović, Brian D. Fields
Proceedings of the 10th Symposium on Nuclei in the Cosmos (2008)
3. "Cosmic-Ray Origin and History Probed by GLAST: Gamma-Rays from Star-Forming Galaxies"
Brian D. Fields, Vasiliki Pavlidou, Tijana Prodanović
Proceedings of the 30th International Cosmic Ray Conference (2008), **2**, 153-156
4. "Can solar 6Li abundance really be explained by Galactic cosmic rays?"
Tijana Prodanović, Brian D. Fields
Proceedings of the 30th International Cosmic Ray Conference (2008), **2**, 113-116
5. "Constraining Galactic Infall with Deuterium Observations "
Tijana Prodanović, Brian D. Fields
Publications of the Astronomical Observatory of Belgrade (2009), **86**, 167-172
6. "Ten Commandments for Presentations"
Tijana Prodanović
Communicating Astronomy with the Public Journal (2009), **9**, 19
7. "Solar Gamma Flux Induced by Supernova Neutrinos"
Ivana Horvat, Tijana Prodanović
Publications of the Astronomical Observatory of Belgrade (2009), **86**, 45-50
8. "(Un)True Deuterium Abundance in the Galactic Disk"
Tijana Prodanović, Gary Steigman, Brian D. Fields
Chapter in International Monograph
Light Elements in the Universe (2010), *Proceedings of the International Astronomical Union*, **268**, 65-70
9. "Uvod u spektroskopiju za astronome"
Tijana Prodanović
Textbook
Faculty of Sciences, University of Novi Sad (2010)
10. "The Great Universal Cookout"
Tijana Prodanović
Chapter in international anthology of contemporary astronomy
Postcards From the Edge of the Universe (2010), *European Southern Observatory*, p92-95
11. "Diffuse Gamma-Ray Background from Star-Forming Galaxies"
Brian D. Fields, Vasiliki Pavlidou, Tijana Prodanović
American Astronomical Society, AAS Meeting #217, #231.01 (2011); *Bulletin of the American Astronomical Society*, Vol. 43, 2011
12. "Lithium Production in Galactic Fly-Bys"
Tijana Prodanović, Tamara Bogdanović, Dejan Urošević
Memorie della Societa Astronomica Italiana Supplement, v.22, p.207 (2012)

Research Talks and Posters

- Workshop on Perspectives on the Extragalactic Frontier: from Astrophysics to Fundamental Physics, May 2016:
"Cosmic-Ray Acceleration in Galactic Interactions and Its Implications"
- Seminar at the University of Ljubljana, June 2016:
„Cosmic-Ray Acceleration in Galactic Interactions and Its Implications“
- 34th International Cosmic-Ray Conference, Hague, July 2015:
„ COSMIC RAYS: A VIEW INTO GALACTIC INTERACTIONS AND THE NEW PHYSICS “

- Seminar at the Institute of Physics, Zemun, April 2015:
„Cosmic Rays as Indicators of New Physics and Galactic Interactions“
- Seminar at the University of Zagreb, February 2015:
„Galactic Interactions: More than Meets the Eye“
- Seminar at the University of Crete, November 2014:
„Cosmic Rays: A View into Structure Formation and the New Physics“
- Seminar at the National Observatory of Athens, November 2014:
„Cosmic Rays: A View into Structure Formation and the New Physics“
- XVII National Conference of Astronomers of Serbia, septembar 2014:
"Lithium in Small Magellanic Cloud: Implications for New Physics" (predavanje po pozivu)
- Workshop on the Future of Dark Matter Astro-Particle Physics: Insights and Perspectives, Oct 2013:
"Tidal Cosmic Rays in Galactic Fly-Bys"
- Astronomy Seminar, University of Belgrade, Dec 2012:
"Galactic Fly-Bys as the New Source of Cosmic Rays and Lithium"
- SF11 Cosmology Summer Workshop, Santa Fe, July 2011:
"Primordial Elements: Double Trouble "
- First EUROGENESIS Workshop: Origins of the elements and nuclear history of the universe novembar 2010:
"What Can Gamma-Rays Tell Us About Lithium Production"
- First International Conference on Geoheritage and Geotourism Research GEOTRENDS, 2010:
"Earth: The Beginning" (plenary speaker)
- Astronomy Seminar, University of Belgrade, March 2010:
"The Trouble with Galactic Deuterium"
- Nuclei in the Cosmos XI Symposium, Heidelberg, Germany; 2010:
"Deuterium Link: From Interstellar Medium and Chemical Evolution to Cosmology and Structure Formation" (poster)
- IAU Symposium 268: Light Elements in the Universe, Geneva, November 2009:
"The (Un)True Deuterium Abundance in the Galactic Disk"
- XV National Conference of Astronomers of Serbia, October 2008:
"Constraining Galactic Infall With Deuterium Observations"
- Nuclei in the Cosmos X Symposium, Mackinac Island, Michigan, USA; July 2008
"New Constraints of Galactic Infall From Deuterium Observations" (poster)
- 30th International Cosmic-Ray Conference, Merida, July 2007:
„Can Solar 6Li Abundance Really Be Explained by Galactic Cosmic Rays“
- Seminar at the University of Chicago, July 2007:
„Double Trouble: The Lithium Problems“
- Astronomy Seminar, University of Belgrade, Nov. 2006:
"Cosmic Rays: Lithium and Diffuse Gamma Radiation"
- Seminar at McGill University, Jan. 2006:
"Probing Dark Matter and pre-Galactic Lithium Production with Hadronic Gamma Rays"
- Seminar at Canadian Institute for Theoretical Astrophysics, Jan. 2006:
"Probing Dark Matter and pre-Galactic Lithium Production with Hadronic Gamma Rays"
- Seminar at North Carolina State University, Dec. 2005:
"Probing Dark Matter and pre-Galactic Lithium Production with Hadronic Gamma Rays"
- Astronomy Journal Club, Univ. of Illinois at Urbana-Champaign, Sept. 2005:
"Connecting the Dots: TeV Gamma-Rays"
- TeV Particle Astrophysics Workshop, Fermi National Accelerator Laboratory, Jul 2005:
"Diffuse Gamma-Rays: A Model-Independent Approach"
- Nuclei in the Cosmos VIII Symposium, Vancouver, Jul 2004:
" 6Li and Gamma-Rays: Constraints on Primordial Lithium, Cosmic Rays and

Cosmic Star Formation" (poster)

- Astronomy Journal Club, Univ. of Illinois at Urbana-Champaign, Feb. 2004:

"Pions, Gamma-Rays and Lithium and How They Connect"

- Great Lakes Cosmology VII, Ann Arbor, May 2003:

"On Non-Primordial Deuterium Production by Accelerated Particles"

- Astronomy Journal Club, Univ. of Illinois at Urbana-Champaign, Maj 2003:

"On Non-Primordial Deuterium Production by Accelerated Particles"