

Izveštaj o radu u školskoj 2017/2018. godini
dr Dragoljub D. Dimitrijević

Nastavna delatnost

- Nastava na Departmanu za fiziku (svi nivoi studija), Departmanu za Matematiku (diplomske studije) i Departmanu za biologiju (osnovne studije): Osnove matematičke fizike, Uvod u kosmologiju, Fizika elementarnih čestica, Simetrije u fizici, Fizika, Kosmologija.
- Nastava u Odeljenju za učenike sa posebnim sposobnostima za fiziku Gimnazije „Svetozar Marković“ u Nišu: Fizika mikrosveta; mentor jednog maturska rada. Nastava iz predmeta Kvantna teorija polja, Prirodno-matematički fakultet Univerziteta u Banjoj Luci, BiH.

Naučno-istraživački projekti

- Nacionalni projekt OI174020, MPNRS: Geometrija i topologija mnogostrukosti, klasična mehanika i integrabilni dinamički sistemi.
- ICTP – SEENET-MTP projekt NT-03 *Cosmology – Classical and Quantum Challenges*.
- COST akcija CANTATA CA15117 *Cosmology and Astrophysics Network for Theoretical Advances and Training Actions*.

Naučni radovi

- D.D. Dimitrijevic, N. Bilić, G.S. Djordjevic, M. Milosevic and M. Stojanović, *Tachyon scalar field in a braneworld cosmology*, International Journal of Modern Physics A (submitted 2018).
- M. Milošević, N. Bilić, D.D. Dimitrijević, G.S. Djordjević and M. Stojanović, *Numerical Calculation of Hubble Hierarchy Parameters and Observational Parameters of Inflation*, in AIP Conference Proceedings (submitted 2018).
- D.D. Dimitrijevic, M.A. Dimitrijevic, G.S. Djordjevic and M. Milosevic, *On Tachyonic Inflaton with Constraints*, in AIP Conference Proceedings (submitted 2018).
- N. Bilic, D.D. Dimitrijevic, G.S. Djordjevic, M. Milosevic and M. Stojanovic, *Tachyon inflation in the holographic braneworld*, [Arxiv 1809.07216].
- D.D. Dimitrijevic, N. Bilić, G.S. Djordjevic, M. Milosevic, *Tachyon scalar field in DBI and RSII cosmological context*, in SFIN (submitted 2018).

Predavanja na međunarodnim naučnim skupovima

- *AdS/CFT and holography in an RSII cosmological context*
On a safe road to quantum gravity with matter, 11-14 September 2018, Hvar, Croatia.
- *On nonstandard Lagrangian as a constrained system*
Conference of the Balkan Physical Union – BPU10, 26-30 August 2018, Sofia, Bulgaria.
- *Tachyon inflation in the RSII framework*
SEENET-MTP Balkan Workshop BW2018 Field Theory and the Early Universe, 10-14 June 2018, Niš, Serbia.
- *On tachyonic inflaton with constraints*
Physics Conference TIM18, 24-26 May 2018, Timisoara, Romania.
- *Tachyon scalar field in DBI and RSII cosmological context*
9th Mathematical Physics Meeting, 18–23 September 2017, SANU, Belgrade.

Apstrakti sa međunarodnih naučnih skupova

- M. Milošević, N. Bilić, D.D. Dimitrijević, G.S. Djordjević and M. Stojanović, *Numerical calculation of Hubble hierarchy parameters and observational parameters of inflation*, Book of abstracts of the Conference of the Balkan Physical Union – BPU10, Sofia, Bulgaria, 40 (26-30 August 2018).

- M. Dimitrijević, D.D. Dimitrijević, G.S. Djordjević and M. Milošević, *On nonstandard Lagrangian as a constrained system*, Book of abstracts of the Conference of the Balkan Physical Union – BPU10, Sofia, Bulgaria, 62 (26-30 August 2018).
- D.D. Dimitrijević, G.S. Djordjević, N. Bilić and M. Milošević, *Tachyon inflation in the RSII framework*, The Book of Short Contributions and Extended Abstracts of the SEENET-MTP Balkan Workshop BW2018 Field Theory and the Early Universe, Niš, Serbia (10-14 June 2018).
- D.D. Dimitrijević, M.A. Dimitrijević, G.S. Djordjević and M. Milošević, *On tachyonic inflaton with constraints*, Book of Abstracts of the Physics Conference TIM18, Timisoara, Romania, 56 (24-26 May 2018).
- D. Delibasic, D.D. Dimitrijević, G.S. Djordjević, M. Milošević and M. Stojanović, *Braneworld Cosmology and Tachyon Inflation - RSII Numerical Models*, Book of Abstracts of the XVIII Serbian Astronomical Conference, Belgrade, 35 (17-21 October 2017).
- D.D. Dimitrijević, N. Bilić, G.S. Djordjević and M. Milošević, *Tachyon scalar field in DBI and RSII cosmological context*, Abstract book of the 9th Mathematical Physics Meeting, SANU, Belgrade, 7 (18–23 September 2017).

Ostala predavanja

- *15 Years of the SEENT-MTP*
Faculty of Physics, West University of Timisoara, Romania, 25 May 2018
- *Nonstandard Lagrangian in cosmology - Constrained system*
Department of Theoretical Physics, IFIN-HH & Department of Theoretical Physics, Faculty of Physics, Bucharest, Romania, 23 April, 2018
- *Classes of constraints of the tachyon field in flat and curved spacetime*
Department of Physics, Craiova University, 17 April, 2018
- *Nukleosinteza u ranom Svetmiru*
CERN Masterclass u Nišu (27. mart 2018, PMF, Niš)

Uređivanje zbornika

- Član uređivačkog odbora, The Book of Short Contributions and Extended Abstracts of the SEENET-MTP Balkan School and Workshop BW2018 (3-14 June 2018, Niš, Serbia).
- Član uređivačkog odbora (Guest Editor), Facta Universitatis – Series Physics, Chemistry and Technology, devoted to the SEENET-MTP Balkan School and Workshop BSW2018.
- Član uređivačkog odbora, 15 Years of the SEENET-MTP (jun 2018).

Ostale aktivnosti

- Sekretar SEENET-MTP Mreže
- Predsednik Društva fizičara Niš
- Predsednik Organizacionog odbora SEENET-MTP Balkan School and Workshop BSW2018 (3-14. Jun 2018)
- Član Programske i Organizacione odbore VI Međunarodne konferencije Položaj fizike u srednjim školama (9-11. mart 2018, Aleksinac)
- Pratilac ekipe učenika Nišavskog okruga na XII Srpsku fizičku olimpijadu XIISFO (Beograd, 27-28. april 2018)
- Član Lokalnog organizacionog tima CERN Masterclass-a u Nišu (27. mart 2018)
- Organizacija IV CERN – SEENET-MTP PhD Training program-a New Trends in High Energy Theory (16-20 October 2017, Sofia University, Sofia, Bulgaria)
- Aktivnosti na promociji i popularizaciji fizike
- Učešće u radu Veća i Komisija Fakulteta