Jasna Stevanović

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Employment

- **Institute of Nuclear Sciences Vinča, University of Belgrade, Serbia**
  - Researcher on the project of the Ministry of Science of the Republic of Serbia "Physics and detector R&D in HEP experiments" (Project No. 171012), 2018 - present
- **Faculty of Science, University of Kragujevac, Serbia**
  - **Assistant Professor**
    - for the scientific field Atomic, Molecular and Optical Physics, 2019 -
  - **Teaching Assistant**
    - for the scientific field Atomic, Molecular and Optical Physics, 2013 - 2019
  - **Participation in scientific projects:**
  - Researcher on the following projects, Ministry of Science of the Republic of Serbia:
    - "Experimental and theoretical investigations in radiation physics and radioecology", Project No. 171021, 2011 - 2017
    - "Theoretical and experimental investigations in microdosimetry and radioecology", Project No. 141023, 2006 - 2010
    - "Dynamics of atomic systems and their interaction with radiation", Project No. 1470, 2004 - 2005
  - **Research ranks:**
    - **Research Associate**, 2017 -
    - **Research Assistant**, 2009 - 2013
    - **Junior Research Assistant**, 2004 - 2009

Education

- **Faculty of Science, Department of Physics, University of Kragujevac**
  - **PhD in Physics**, Department of Physics, University of Kragujevac, 2014
    - Thesis title: *Corrected transition rate to the ADK theory in the process of tunnel ionization*
  - **MSc in Physics**, Department of Physics, University of Kragujevac, 2007
    - Thesis title: *Transition probability dependence on the laser field intensity in the ADK-theory*
    - Average/Overall Grade: 9.70/10.00 MSc
  - **BSc in Physics**, Department of Physics, University of Kragujevac, 1998 - 2004
    - Thesis title: *Branching processes in physics with application to polymers*
    - Average/Overall Grade: 9.04/10.00 PhD

Conferences/Workshops

- CLIC Workshop 2019, 21-25 January 2019, CERN, Geneva
- 3rd International School and Conference on Photonics 29 August - 2 September, 2011, Belgrade, Serbia
- Balkan Summit of Young Scientists 17-19 December 2010, Thessaloniki, Greece
- 25th SPIG August 30-September 3, 2010, Donji Milanovac, Serbia
- 23rd SPIG August 28-September 1, 2006, Kopaonik, Serbia

Computing skills

- Programming: Wolfram Mathematica, C++
- Operating systems: MS Windows

Language skills

- English (intermediate level)

Research Experience

Theoretical investigation in laser-matter interactions, concerning atomic ionization using tunnel ionization and single-atom aproximation in semiclassical theories for intense laser fields. Testing and applying the tunnel ionization rate formula improved with modified ionization potentials and effective quantum number for the above-barrier ionization and barrier-supression ionization processes, as well as a more precise analysis of determining the required boundary conditions for these effects. Finding a more realistic representation of the tunneling dynamics of certain atoms at considered laser field intensities. The analysis of the theoretical data obtained by using the derived formulas and the existing experimental results refer to hydrogen-like atoms when they are affected by intense laser fields.

Teaching Experience

- Mathematical physics 1
- Mathematical physics 2
- Theoretical mechanics
- Quantum optics
- Using microcomputers in physics
- Physics 1
- General theory of relativity

List of Publication

- **Research Papers - International Journals:**

  (1) V. M. Ristić, J. M. Stevanović and M. M. Radulović, *Transition rate dependence on the improved turning point in ADK-theory*, Laser Physics Letters, Vol. 3, No. 6, 298-300 (2006)

  (2) V. M. Ristić and J. M. Stevanović, *Transition rate dependence on the atom charge states, Z*, Laser Physics Letters, Vol. 4, No. 5, 354-356 (2007)

  (3) V. M. Ristić and J. M. Stevanović, *Atom charge states, Z and comparing the ADK and cADK-theories*, Laser Physics, Vol. 19, No. 5, 989-992 (2009)

  (4) V. M. Ristić, T. B. Miladinović and J. M. Stevanović, *Circularly polarized laser fields, with different Z, including non-zero initial momentum*, Acta Physica Polonica A Vol. 119, No. 6, 761-763 (2011)

  (5) J. M. Stevanović, T. B. Miladinović, M. M. Radulović and V. M. Ristić, *Ionization rate for circularly polarized laser fields with modified ionization potential included*, Physica Scripta T149, 014046 (2012)

  (6) M. M. Radulović, J. M. Stevanović, T. B. Miladinović, V. M. Ristić, *The role of the non-zero initial momentum and modified ionization potential in the corrected Ammosov-Delone-Krainov theory*, Romanian Journal of Physics, 58, 127-135 (2013)

  (7) V. M. Ristić, M. M. Radulović, T. B. Miladinović and J. M. Stevanović, *Getting deeper insight into stopping power problems in radiation physics using the Noether's theorem corollary*, Nuclear Technology and Radiation Protection Vol. 29, No. 1, 24-27 (2014)

- **Proceedings - International Conferences/Workshops:**

  (1) V. M. Ristić, J. M. Stevanović and M. M. Radulović, *Transition Rate Dependance on the Atom Charge States, Z*, 23rd SPIG, Contributed Papers, 83-87 (2006)

  (2) V. M. Ristić, T. B. Miladinović and J. M. Stevanović, *Ionization Transition Rate for Circularly Polarized Fields, for different Z, Including non-zero Initial Momentum*, 25th SPIG, Contributed Papers, 45-48 (2010)