Hamidreza Emamipour

Curriculum Vitae

Employment

2011–2021 **Assistant Professor of Physics**, *Department of Physics, Ilam University, Iran.*

2021-present **Associate Professor of Physics**, *Department of Physics, Ilam University, Iran*

Education

2000 BSc. in Physics at Tarbiat Moallem University of Tehran-Iran.

2003 MSc. in Solid State Physics at Institute for Advanced Studies in Basic Sciences (IASBS) Zanjan-Iran.

Master Thesis: Study of the dynamics of a globally coupled array of Josephson junctions.

2010 PhD in Solid State Physics at Tarbiat Modares University (TMU) of Tehran-Iran.

PhD Thesis: Study of tunneling conductance in a ***Nano***-junction between a normal metal and a ferromagnetic superconductor.

Research Interests

-Transport of charge and spin in superconducting junctions.
-Unconventional superconductivity: coexistence of ferromagnetism and superconductivity in structures.
-Strongly correlated systems.

Teaching Assignments

2014 **Superconductivity** (teaching references: V. V. Schmidt, The physics of superconductors- J. F. Annett, superconductivity, superfluids and condensates)

2013 **Solid state physics** (teaching references: C. Kittel, Introduction to solid state physics-M. Ali Omar, Elementary Solid state physics)

2012 **Quantum Physics** (teaching references: S. Gasiorowicz, Quantum Physics- N. Zettili, Quantum Mechanics)

Recent Publications

- "Study of differential shot noise in ferromagnet-insulator-superconductor graphene junction with TRSB" Hamidreza Emamipour, Superlattices and Microstructures,107167 (2022).

- "Tunneling conductance in graphene based FNS junction with time-reversal symmetry broken" Hamidreza Emamipour, Physics Letters A, 417,127679 (2021).

- "Study of spin polarization in graphene-based unconventional superconductor junctions" Hamidreza Emamipour, Materials Science & Engineering B, 271,115264 (2021).
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- "Graphene based superconducting junctions as spin sources for spintronics" Hamidreza Emamipour, Physica E, 96,23 (2018).

- "Differential shot noise and Fano factor in a ferromagnet-Graphene-superconductor junction" Hamidreza Emamipour, Journal of Magnetism and Magnetic Materials, 449,133 (2018).

- "Spin-polarized current in Zeeman-split d-avesuperconductor/quantum wire junctions" Hamidreza Emamipour, Solid State Communications, 236,17 (2016).
- Zeeman effects on the tunneling spectra of a ferromagnetic d-wave superconductor in contact with a quantum wire", Hamidreza Emamipour, Narges Mehrabzad, Physica B, 493, 81 (2016).
- "*Temperature dependence of zero bias conductance in a nano wire-d wave superconductor junctions*" H. Emamipour and M. Niknejad , "**Journal of Research on Many-body Systems**", 5 , 9 (2015). (This journal is published in Iran).
- "*Spin Polarization Dependence of Zero Bias Conductance in Ferromagnetic Quantum Wire/ D-wave Superconductor Junctions*" H. Emamipour and N. Mehrabzad , "**Journal of Superconductivity and Novel Magnetism**",28, 1967 (2015).

- "*Current-phase relation in FSIFS Josephson junction*" H. Emamipour and A. Khatibi , "**Journal of Superconductivity and Novel Magnetism**",27, 2415 (2014).
- "*dc Josephson effect in a junction between two ferromagnetic superconductors*" H. Emamipour, **Solid State Communications** ,180,11-15 (2014).
- "*Josephson current versus potential strength of interface in ferromagnetic superconductors*" H. Emamipour, **Chinese Phys. B** ,23, 057402 (2014).
- "*Simulation of a thin film growth in the presence of active and impurity particles*" H. Emamipour and M. Niknejad , "**Journal of Research on Many-body Systems**", 3 , 5 (2013). (This journal is published in Iran).
- **"***Tunneling conductance in ferromagnetic metal/ normal metal/ spin singlet s-wave ferromagnetic superconductor junctions*" H. Emamipour, **Advances in Condensed Matter Physics**, 2013,1–5 (2013).
- **"***One-Dimensional Study of Andreev Oscillations in a Nano-layer Between a Ferromagnetic Metal and an s-Wave Superconductor*" H. Emamipour, **J Low Temp Phys** , 171,70–76 (2013).
- "*Study of coexistence between ferromagnetism and superconductivity in a ferromagnetic superconductors*" H. Emamipour, "**Journal of Research on Many-body Systems**",3,42 (2012).
- "*The study of zero-bias conductance versus the potential strength of normal metal-ferromagnetic superconductor junction*" H. Emamipour and J. Emamipour, **Chinese Phys. Lett**. **29**, 037401(2012).
- "*Tunneling Conductance in a Normal Metal/Ferromagnetic Superconductor Nano-Junction at a Finite Temperature*" H. Emamipour and M. Abolhasani, **Commu. Theo. Phys**. **55**, 171(2011).
- "*Temperature dependence of zero-bias conductance in a normal metal/ferromagnetic superconductor Junction*" H. Emamipour and M. Abolhasani, **Supercond. Sci. Technol**. **23 ,** 105001 (2010).