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Научно-исследовательский институт физики

Лаборатория исследования и моделирования квантовых явлений
Научный сотрудник

🎓 Образование

Учреждение	Yerevan State University
Факультет	Faculty of physics
Дата	2008 - 2014
Степень / Звание	Магистр

🎓 Ученое звание/Ученая степень

Учреждение	Goethe University, Institute for Theoretical Physics
Дата	2018
Степень / Звание	Аспирант
Научный руководитель	Armen Sedrakyan
Научная тема	Relativistic hydrodynamics and transport in strongly correlated systems

💼 Опыт работы

Учреждение	Byurakan Astrophysical Observatory
Период времени	2018 до настоящего времени
Звание/степень	Senior researcher

🔬 Научные интересы

- Compact stars, transport phenomena, relativistic hydrodynamics

📖 Публикации

Статья

Generalized relativistic second-order dissipative hydrodynamics: coupling different rank tensors

Arus Harutyunyan, Armen Sedrakian

Annals of Physics 2025 170159

Статья

Bulk Viscosity of Two-Flavor Color Superconducting Quark Matter in Neutron Star Mergers

Mark Alford, Arus Harutyunyan, Armen Sedrakian, Stefanos Tsiopelas
Frontiers in Astronomy and Space Sciences 2025 1648066

Статья

Electrical conductivity of a warm neutron star crust in magnetic fields: Neutron-drip regime
Arus Harutyunyan, Armen Sedrakian, Narine T. Gevorgyan, Mekhak V. Hayrapetyan
Physical Review C 2024 055804

Статья

Bulk viscosity of two-color superconducting quark matter in neutron star mergers
Mark Alford, Arus Harutyunyan, Armen Sedrakian, Stefanos Tsiopelas
Physical Review D 2024 L061303

Статья

Thermal Conductivity and Thermal Hall Effect in Dense Electron-Ion Plasma
Arus Harutyunyan, Armen Sedrakian
Particles 2024 967-983

Статья

Phenomenological Relativistic Second-Order Hydrodynamics for Multiflavor Fluids
Arus Harutyunyan, Armen Sedrakian
Symmetry 2023 494

Статья

Bulk viscosity from Urca processes: $n\mu$ matter in the neutrino-transparent regime
Mark Alford, Arus Harutyunyan, Armen Sedrakian
Physical Review D 2023 083019

Статья

Relativistic second-order dissipative hydrodynamics from Zubarev's non-equilibrium statistical operator
Arus Harutyunyan a, Armen Sedrakian, Dirk H. Rischke
Annals of Physics 2022 168755

Статья

Delta-resonances and hyperons in proto-neutron stars and merger remnants
Armen Sedrakian, Arus Harutyunyan
European Physical Journal A 2022 137

Статья

Bulk Viscosity of Relativistic $n\mu$ Matter in Neutron-Star Mergers
Mark Alford, Arus Harutyunyan, Armen Sedrakian
Particles 2022 361-376

Статья

Bulk viscosity from Urca processes: $n\mu$ matter in the neutrino-trapped regime
Mark Alford, Arus Harutyunyan, Armen Sedrakian
Physical Review D 2021 103027

Статья

Equation of State and Composition of Proto-Neutron Stars and Merger Remnants with Hyperons

Armen Sedrakian, Arus Harutyunyan

UNIVERSE 2021 382

Статья

Bulk Viscous Damping of Density Oscillations in Neutron Star Mergers

Mark Alford, Arus Harutyunyan, Armen Sedrakian

Particles 2020 500-517

Статья

Bulk viscosity of baryonic matter with trapped neutrinos

Mark Alford, Arus Harutyunyan, Armen Sedrakian

Physical Review D 2019 103021

Статья

Bulk Viscosity of Hot Quark Plasma from Non-Equilibrium Statistical Operator

Arus Harutyunyan, Armen Sedrakian

Particles 2018 212-229

Статья

Relativistic Dissipative Fluid Dynamics from Non-Equilibrium Statistical Operator

Arus Harutyunyan, Armen Sedrakian, Dirk H. Rischke

Particles 2018 155-165

Статья

Electrical resistivity and Hall effect in binary neutron star mergers

Arus Harutyunyan, Antonios Nathanail, Luciano Rezzolla, Armen Sedrakian

European Physical Journal A 2018 191

Статья

On the importance of resistivity and Hall effect in MHD simulations of binary neutron star mergers

A. S. Harutyunyan

Communications of the Byurakan Astrophysical Observatory 2018 338-345

Статья

Transport coefficients of two-flavor quark matter from the Kubo formalism

Arus Harutyunyan, Dirk H. Rischke, Armen Sedrakian

Physical Review D 2017 114021

Статья

Bulk viscosity of two-flavor quark matter from the Kubo formalism

Arus Harutyunyan, Armen Sedrakian

Physical Review D 2017 034006

Статья

Electrical conductivity of a warm neutron star crust in magnetic fields

Arus Harutyunyan, Armen Sedrakian

Physical Review C 2016 025805-1-18

Статья

ABSORPTION OF MAGNETOSONIC WAVES IN THE CRUST OF NEUTRON STARS. RADIO EMISSION FROM PULSARS

D. M. Sedrakian, A. S. Harutyunyan, M. V. Hayrapetyan

Астрофизика (Astrophysics) 2014 530-549

Статья

MAGNETOHYDRODYNAMIC EQUATIONS FOR THE CRUST OF NEUTRON STARS

D. M. Sedrakian, A. S. Harutyunyan, M. V. Hayrapetyan

Астрофизика (Astrophysics) 2013 76-87

Статья

Magnetosonic waves in the crust of a neutron star

D. M. Sedrakian, A. S. Harutyunyan, M. V. Hayrapetyan

Астрофизика (Astrophysics) 2013 229-245

Конференция

Magnetosonic waves in the crust of a neutron star

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Конференция

Electrical conductivity tensor of dense plasma in magnetic fields

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