

## Լեզուների իմացություն

Հայերեն Русский English

## Հրապարակումներ

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**Spin-Dependent Multichannel Tunneling of an Electron in a Nanotube with an Impurity in a Longitudinal Magnetic Field [Спин-зависимое многоканальное туннелирование электрона в нанотрубке с примесью в продольном магнитном поле]**

A. Zh. Muradyan, D. A. Badalyan

Известия НАН РА. Физика (Journal of Contemporary Physics (Armenian Academy of Sciences) 2025  
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**Stationary States of an Electron in a Prolate Spheroidal Quantum Dot [Стационарные состояния электрона в вытянутой сфероидальной квантовой точке]**

M. V. Hayrapetyan, A. Zh. Muradyan

Известия НАН РА. Физика (Journal of Contemporary Physics (Armenian Academy of Sciences) 2024  
144 - 148

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**Polarimetric Light-Pulse Atom Interferometer: Two-Level Scheme [Поляриметрический светимпульсный атомный интерферометр: двухуровневая схема]**

A. Zh. Muradyan

Известия НАН РА. Физика (Journal of Contemporary Physics (Armenian Academy of Sciences) 2024  
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**Jaynes-Cummings Model in Counter Propagating Waves Basis: Large Numbers of Excitations**

A. Zh. Muradyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2023 134-139

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**Spin-dependent multichannel scattering of electron in a quantum wire**

A. Zh. Muradyan, D. A. Badalyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2023 31-37

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**Far resonance Kapitza-Dirac diffraction: from Raman-Nath to Bragg and multiple beam atomic interferometer**

Atom Zh. Muradyan

Optical Memory and Neural Network 2023 S296-S304

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**Absorptive Atom Interferometer**

A. Zh. Muradyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2023 355 - 361

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**Quantum Tunneling Time of a Moderately Singular Potential: Regularization Method**

A.Zh. Muradyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2022 230-237

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**Spin-dependent multichannel scattering of electron in a quantum wire with a point defect**

D.A. Badalyan, A. Zh. Muradyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2022 41-48

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**On Quantum Tunneling of a Singular Potential**

A. Zh. Muradyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2021 91-97

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**Spontaneous Emission of a Semiconductor Quantum Dot without the Dipole Approximation**

G. A. Muradyan, L. R. Arzumanyan, A. Zh. Muradyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2020 317-322

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Ուսումնական ծեռնարկ

**Լաբորատոր պարապմունքների ուղեցույց: Մոլեկուլային ֆիզիկա**

Ա. Ժ. Մուրադյան, Դ. Հ. Բադալյան, Ռ. Յ. Գաբրիելյան, Մ. Վ. Հայրապետյան, Լ. Ա. Հովհաննիսյան  
2019 60

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**Approximate Formula for Superposition State of two Level Atom and Large Number of Counterpropagating Photons**

A. Zh. Muradyan, G. A. Muradyan, L. R. Arzumanyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2019 11 - 16

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**Лазерные бегущие волны для дифракции Капицы-Дирака в атомном интерферометре**

А.Ж. Мурадян, Г.А. Мурадян

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**Переходы между квантованными стоячими волнами при взаимодействии с атомом в режиме Рамана-Ната**

А.Ж. Мурадян, Г.А. Мурадян, Л.Р. АРЗУМАНЯН

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**Квазиклассическое приближение для резонансного рассеяния Капицы-Дирака**

А.Ж. Мурадян, Г.А. Мурадян

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**Tunneling dynamics of a two-atom system**

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**Generalized Bloch states of a two-level atom in the field of counterpropagating waves:  
application to the Kapitza-Dirac diffraction problem**

Atom Zh Muradyan, Gevorg Muradyan

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**Approximate solution of the Schrödinger equation for an atom in the field of a standing wave**

L. A. Hovhannisyan, G. A. Muradyan, A. Zh. Muradyan

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**Total transparency in quantum tunneling of counterpropagating waves**

A. Zh. Muradyan, G. A. Muradyan, H. R. Hakobyan

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**Raman - Nath approximation for diffraction of atoms in the laser field taking into account  
spontaneous emission of atoms for ground and high energy level**

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**Quantum superposition principle and generation of short optical pulses**

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**Improvement of the Raman-Nath approximation for the resonant Kapitza-Dirac scattering**

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**Theory of a compound large-angle atom beam splitter. II. Initial state deflection**

A. Zh. Muradyan, G. A. Muradyan, P. R. Berman

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**Theory of a compound large-angle atom beam splitter**

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**Stationary states of the Jaynes-Cummings model with atomic centre-of-mass quantum motion: analytical approximation to transfer counterpropagating waves into a standing wave in a large photon number limit**

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**Optical transition and momentum transfer in atomic wave packets**

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**Momentum transfer for an optical transition in a prepared two-level atom**

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**Перетяжка каустики при резонансной самофокусировке с малым насыщением нелинейности**

А. Ж. Мурадян

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Գիտաժողովի նյութ

**Atom diffraction by a standing wave: from Raman-Nath to Bragg and multi-beam atom interferometry**

A. Muradyan

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Գիտաժողովի նյութ

**Resonance Kapitza-Dirac Diffraction of an Atom in a Standing Wave as a Probe of Quantum Superposition Principle**

A.Zh. Muradyan

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