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🎓 Образование

Учреждение	Ереванский государственный университет
Факультет	физика
Дата	1975 - 1984
Степень / Звание	Аспирант

🎓 Ученое звание/Ученая степень

Учреждение	Ереванский государственный университет
Дата	2017
Степень / Звание	Доктор наук
Специальность	Физико-математические науки
Научная тема	ТЕОРИЯ РЕНТГЕНОВСКИХ ДИФРАГИРОВАННЫХ ВОЛНОВЫХ ПОЛЕЙ, ДИНАМИЧЕСКОЙ КОГЕРЕНТНОЙ ГОЛОГРАФИИ И ИНТЕРФЕРОМЕТРИИ

🌐 Знание языков

Հայերեն English Русский

💼 Опыт работы

Учреждение	Ереванский государственный университет
Период времени	1980 до настоящего времени
Звание/степень	ведущий научный сотрудник

☝️ Научные интересы

- рентгеновская динамическая дифракция, рентгеновская голограмма и интерферометрия,
рентгеновская оптика

👤 Членство

Учреждение	Интернациональное объединение кристаллографов
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Публикации

Статья

Double-slit X-ray dynamical diffraction in elastically deformed crystals

Minas K. Balyan

Acta Crystallographica A-Foundation and Advances 2025 294-305

Статья

Double-Slit X-Ray Dynamical Diffraction in the Transmitted Beam [Рентгеновская динамическая дифракция на двух щелях в проходящем пучке]

A. P. Aivazyan, M. K. Balyan, S. A. Petrosyan, V. P. Mkrtchyan

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Статья

Double-slit asymmetrical dynamical diffraction of X-rays in ideal crystals

Minas Balyan

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Статья

Measurements of the geometrical characteristics and refractive index of specimens made with X-ray interferometers

Vahram Mkrtchyan, Ashot Aivazyan, Sargis Petrosyan, Minas Balyan

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Статья

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M. K. Balyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2023 92-98

Статья

Double-slit X-ray dynamical diffraction in curved crystals

Minas K. Balyan

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Статья

Vector Monochromatic Diffraction Fields and Fields of Charges in Electrodynamics

M. K. Balyan

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Electromagnetic Vector Monochromatic Diffraction Fields and Fields of Charges in Media

M.K.Balyan

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Vector Non-Stationary Electromagnetic Diffraction Fields and Fields of Charges in Media

M. K. Balyan

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*Статья***Rocking Curves of X-Ray Asymmetrical Laue Diffraction in a Crystal with the Third-Order Nonlinear Response**

M.K. Balyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2022 91-97

*Статья***X-ray third-order nonlinear diffraction in the asymmetric reflection geometry**

Minas K. Balyan

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*Статья***Fields of Charges and Diffraction Fields in Electrodynamics**

M.K.Balyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2022 331-341

*Статья***Coherence Requirements for X-Ray Dynamical Diffraction Talbot Effect Inside a Crystal**

M. K. Balyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2021 55-59

*Статья***X-ray dynamical diffraction Talbot effect behind a crystal in free space**

Minas Balyan, Levon Levonyan, Karapet Trouni

Acta Crystallographica A-Foundation and Advances 2021 149-159

*Статья***Hard X-Ray Off-Axis Fresnel Holography using Two-Block Fresnel Zone Plate Interferometer**

L.A.Haroutunyan, M.K.Balyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2021 154-157

*Статья***X-ray third-order nonlinear asymmetric diffraction in the transmission geometry**

M.K.Balyan

Physica Scripta 2021 125006 (21)

*Статья***X-Ray Dynamical Diffraction Analogue of Talbot Effect in Case of Incident Finite Front Wave**

M.K.Balyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2020 70-76

*Статья***Testing of a 'hard' X-ray interferometer for experimental investigations**

Tigran H. Eyramyan, Mesrop H. Mesropyan, Tamara S. Mnatsakanyan, Minas K. Balyan

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Investigation of third-order nonlinear dynamical X-ray diffraction based on a new exact solution

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ТРЕХБЛОЧНОГО ИНТЕРФЕРОМЕТРА ИЗ ФРЕНЕЛЕВСКИХ ЗОННЫХ ПЛАСТИН

Л.А. АРУТЮНЯН, М.К. БАЛЯН

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Статья

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M K Balyan

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Dependence of X-ray asymmetrical Bragg case plane-wave rocking curves on the deviation from exact Bragg orientation in and perpendicular to the diffraction plane

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An X-Ray Dynamical Diffraction Analogue of Talbot Effect in the Transmitted Beam

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X-ray Fourier transform holography by amplitude-division-type Fresnel zone plate interferometer

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Experimental and theoretical investigations of an X-ray LLL interferometer with a wedge-shaped mirror plate

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Rocking Curves in the Laue Geometry Depending on the Departure of Incident Plane X-ray Wave from the Bragg Condition in the Diffraction Plane and in the Direction Perpendicular to the Diffraction Plane

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М.К.Балян

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X-ray third-order nonlinear plane-wave Bragg-case dynamical diffraction effects in a perfect crystal. Erratum

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Bragg diffraction of spherical X-ray wave with allowance for two-dimensional curvature of wavefront

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X-ray third-order nonlinear dynamical diffraction of X-rays in a crystal

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X-ray Laue diffraction with allowance for second derivatives of amplitudes in dynamical diffraction equations

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Theoretical consideration of an X-ray Bragg-reflection lens using the eikonal approximation

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X-ray Laue diffraction with allowance for two-dimensional curvature of wave front: the concept of locally plane wave

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Measurement of the refractive index of nematic liquid crystals 5CB by means of x-ray interferometry

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Eikonal approximation of dynamical diffraction equations for X-ray beams with two dimensional curvature of the wave-front. I. Basic formulas

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M.K.Balyan

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Mlinas K.Balyan

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Study of the X-ray anisotropy of materials via X-ray interferometry

V.P.Mkrtychyan, L.G.Gasparyan, M.K.Balyan

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Статья

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Minas K. Balyan

Acta Crystallographica A-Foundation and Advances 2010 660-668

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Статья

Исследование рентгено-оптической анизотропии материалов рентгеноин-терферометрическим методом

Л.Г.Гаспарян, В.П.Мкртчян, М.К.Балян

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Статья

Искусственная ультразвуковая анизотропия кристаллов в области рентгеновских частот

Л.Г. Гаспарян, В.П. Мкртчян, М.К. Балян, А.С. Мелконян

Известия НАН РА. Физика (Journal of Contemporary Physics (Armenian Academy of Sciences) 2007

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Статья

Модуляция рентгеновского пучка на основе модуляции кристаллической решетки

М.К.Балян, Л.А.Арутюнян

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Статья

Температурная искусственная анизотропия кристаллов в области рентгеновских частот

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Статья

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Paulo J.M.Monteiro

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М.К.Балян, Л.В.Левонян

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Конференция

X-ray interferometric temperature gradient moire fringes in the frame of eikonal approximation

Minas Balyan

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X-ray nonlinear Bragg diffraction

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X-Ray Dynamical Diffraction 'Third Order Nonlinear Renninger Effect'

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Mathematical Reconstruction of an Object Image Using X-Ray Interferometric Fourier Holography Method

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X-Ray Dynamical Diffraction Rocking Curves in Case of Third Order Nonlinear Renninger

Effect

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Mathematical reconstruction of an object image using X-ray interferometric Fourier holography method

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Measurement of the Refractive Index of Nematic Liquid Crystals 5CB by Means of X-ray Interferometry

V.P.Mkrtchyan, L.G.Gasparyan, T.K.Dadalyan, M.K.Balyan, A.V.Kuyumchyan

Конференция

X-ray dynamical diffraction Talbot effect under the condition of two-wave dynamical diffraction in crystals

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X-ray LLL interferometer with wedge-shaped mirror plate

Tigran H. Eyramyan, Tamara S. Mnatsakanya, Minas K. Balyan

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Hard X-Ray Fourier Transform Holography Based on Two-Block Fresnel Zone Plate

Interferometer with Common Optical Axis

L.A. Haroutunyan, M.K.Balyan

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Double-Slit X-ray Dynamical Diffraction in the Transmitted and Diffracted Beams

A. P. Aivazyan, M. K. Balyan, S. A. Petrosyan, V. P. Mkrtchyan
