

# Minas Marat Sukiasyan

## Research Institute of Physics

Laboratory of Ultrafast Optics and Photonics

Senior researcher

☎ 37494174444  
23-32  
(060) 71-03-32

✉ minas.suqiasyan@ysu.am

ℝ<sup>6</sup> 

## Education

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<b>Institution</b>	CANDLE SRI
<b>Faculty</b>	Physics
<b>Date</b>	2016 - 2019
<b>Degree name</b>	PhD student

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<b>Institution</b>	Yerevan State University
<b>Faculty</b>	Physics
<b>Date</b>	2014 - 2016
<b>Degree name</b>	Masters

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<b>Institution</b>	Yerevan State University
<b>Faculty</b>	Physics
<b>Date</b>	2010 - 2014
<b>Degree name</b>	Bachelor

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## Scientific Rank/degree

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<b>Institution</b>	CANDLE SRI
<b>Date</b>	2019
<b>Degree name</b>	Candidate
<b>Specialty</b>	Physico-mathematical sciences
<b>Scientific Supervisor</b>	Levon Mouradian
<b>Research Topic</b>	Solitonic and resembling processes for ultrashort laser pulse's characteristic and spectral self-compression

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## Language skills

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Հայերեն English

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## Work experience

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<b>Institution</b>	CANDLE
<b>Period of time</b>	2016 till now

Rank/degree researcher

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Institution YSU

Period of time 2015 till now

Rank/degree researcher

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## Publications

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*Article*

**Observation of coherent Cherenkov radiation of electron bunches from a partially dielectric loaded waveguide**

L.Sh. Grigoryan, A.P. Potylitsyn, M.V. Shevelev, A.V. Vukolov, P.V. Karataev, S.B. Dabagov, A.S. Vardanyan, A.S. Yeremyan, M.M. Sukiasyan, A.A. Saharian, V.R. Kocharyan, T.R. Muradyan, M.L. Grigoryan, D.E. Baghdasaryan, V.Kh. Kotanjyan, A.V. Sargsyan, H.P. Harutyunyan, H.F. Khachatryan, A.R. Mnatsakanyan, A.H. Mkrtchyan

Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment  
2024 169177

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*Article*

**Generation of a New Type of Similaritons in Optical Fibers [Генерация нового типа симиляритонов в оптических волокнах]**

A. Kutuzyan, V. Avetisyan, M. Sukiasyan

Известия НАН РА. Физика (Journal of Contemporary Physics (Armenian Academy of Sciences) 2024  
36-40

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*Article*

**Influence of Noise Distortions of the Spectral Phase on the Profile of an Ultrashort Pulse [Влияние шумовых искажений спектральной фазы на профиль ультракороткого импульса]**

V. Avetisyan, M. Sukiasyan, A. Avetisyan, A. Kirakosyan, A. Kutuzyan

Известия НАН РА. Физика (Journal of Contemporary Physics (Armenian Academy of Sciences) 2024  
149-153

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*Article*

**Self-Formation of Temporal Dark Solitons in a Single-Mode Optical Fiber [Самоформирование временных темных солитонов в одномодовом оптическом волокне]**

A. Kutuzyan, M. Sukiasyan, Ar. Kirakosyan, V. Avetisyan

Известия НАН РА. Физика (Journal of Contemporary Physics (Armenian Academy of Sciences) 2024  
238-243

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*Article*

**APPLICATION OF LOW-ENERGY, TUNABLE-DELAY ULTRASHORT ELECTRON BUNCH PAIRS FOR IRRADIATION EXPERIMENTS**

A. Yeremyan, H. Davtyan, A. Grigoryan, B. Grigoryan, M. Ivanyan, V. Khachatryan, N. Martirosyan, M. Sargsyan, M. Sukiasyan, A. Vardanyan

Journals of Accelerator Conferences Website 2023 4142-4145

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Article

**Spectral Self-Compression of Chirp-Free Pulses in Anomalous Dispersive Optical Fibers**

Minas Sukiasyan, Vardan Avetisyan, Aghavni Kutuzyan

Photonics 2023 1207

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Article

**Formation of a new type of self-similar pulses in optical fibers with anomalous dispersion**

Aghavni Kutuzyan, Vardan Avetisyan, Meri Kalashyan, Minas Sukiasyan

Optics InfoBase Conference Papers (Frontiers in Optics) 2022 185766

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Article

**Measurement of the ultrashort pulse spectral phase based on dispersive Fourier transformation**

MINAS SUKIASYAN, NAREK KARAPETYAN, HRACH TONEYAN, AGHAVNI KUTUZYAN, LEVON MOURADIAN

Applied Optics 2019 2817-2822

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Article

**Similaritonic Method on Ultrashort Pulse Duration Measurement by Oscilloscope**

M.M. Sukiasyan, N. P. Karapetyan, H.A. Toneyan, A.A. Kutuzyan, L.Kh. Mouradian

Armenian Journal of Physics 2019 107-112

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Article

**Spectral Self-Compression of Partially Coherent Pulses**

M.M. Sukiasyan

Armenian Journal of Physics 2019 113-118

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Article

**ЧИСЛЕННОЕ ИССЛЕДОВАНИЕ ПРОЦЕССА ФОРМИРОВАНИЯ СПЕКТРОНА: ФАЗОВЫЕ ОСОБЕННОСТИ**

Н. КАРАПЕТЯН, Г. ТОНЕЯН, А. КУТУЗЯН, М. СУКИАСЯН, В. АВЕТИСЯН, Д. ГУЛКАНЯН, К. АПРЕСЯН,

Л. МУРАДЯН

Известия НАН РА. Физика (Journal of Contemporary Physics (Armenian Academy of Sciences) 2018 173-180

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Article

**Spectral Characteristics of Nonlinear-Dispersive Similariton Generated in Single-Mode Fiber without Gain**

H. Toneyan, K. Manoukyan, M. Sukiasyan, A. Kutuzyan, L. Mouradian

Armenian Journal of Physics 2017 192-198

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Article

**Designing the femtosecond optical oscilloscope**

H. Toneyan, M. Sukiasyan, A. Zeytunyan, V. Tsakanov, L. Mouradian

Journal of Physics: Conference Series 2016 6

<http://iopscience.iop.org/journal/1742-6596>

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Conference

**Solitonic Self-Spectral Compression of Noisy Supercontinuum Radiation**

Hrach Toneyan, Minas Sukiasyan, Levon Mouradian, Aghavni Kutuzyan, Vardan Avetisyan,

Arsham Eremyan

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Conference

**Simple Diagnostics of Femtosecond Pulses by the Use of Nanosecond Oscilloscope**

K.Manukyan, M.Sukiasyan, H.Toneyan, A. Zeytunyan, L. Mouradian

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Conference

**Experimental Demonstration of Self-Spectral Compression of Supercontinuum's Fraction by 4.1x**

V. Avetisyan, M. Sukiasyan, H. Toneyan, A. Kutuzyan, A. Yeremyan, L. Mouradian

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Conference

**Solitonic Spectral Self-Compression of Regular and Randomly Modulated Pulses**

M.Sukiasyan, H.Toneyan, A.Kutuzyan, V.Tsakanov, L. Mouradian

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Conference

**4.1x Solitonic Self-Spectral Compression of Supercontinuum's Fraction**

Minas Sukiasyan, Vardan Avetisyan, Hrach Toneyan, Aghavni Kutuzyan, Arsham Yeremyan,

Levon Kh. Mouradian

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Conference

**Solitonic Self-Spectral Compression of Supercontinuum Fraction**

Vardan Avetisyan, Minas Sukiasyan, Levon Kh. Mouradian, Arsham Yeremyan, Aghavni Kutuzyan,

Hrach Toneyan

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Conference

**EXPERIMENTAL DEMONSTRATION OF SPECTRAL SELF-COMPRESSION OF FRACTION OF SUPERCONTINUUM RADIATION**

Hrach Toneyan, Minas Sukiasyan, Vardan Avetisyan, Levon Kh. Mouradian

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Conference

**NUMERICAL STUDY OF FEMTOSECOND SIGNAL SPECTRAL SELF-COMPRESSION**

Minas Sukiasyan, Hrach Toneyan, Vardan Avetisyan, Aghavni Kutuzyan, Levon Kh. Mouradian

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Conference

**SIMILARITON BASED TECHNIQUE FOR DETERMINATION OF FEMTOSECOND PULSE DURATION**

Karapet Manukyan, Hrach Toneyan, Minas Sukiasyan, Aghavni Kutuzyan, Levon Kh. Mouradian

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Conference

**Simple Similaritonic Technique for Measurement of the Bell-Shaped, Two-Peak and Compressed Pulse Duration in Femtosecond Domain**

K. Manukyan, M. Sukiasyan, H. Toneyan, L. Mouradian

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Conference

**Solitonic Self-Spectral Compression of Noisy Supercontinuum Radiation**

Hrach Toneyan, Minas Sukiasyan, Vardan Avetisyan, Aghavni Kutuzyan, Arsham Yeremyan,

Levon Kh. Mouradian

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Conference

**Solitonic and Resembling Processes for Ultrafast Laser Pulse Registration and Spectral Self-Compression**

Minas Sukiasyan

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*Conference*

**Spectron and Dispersive Fourier Transformation: Phase Aspect**

N. Karapetyan, M. Sukiasyan, H. Toneyan, A. Kutuzyan, L. Kh. Mouradian

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*Conference*

**Spectral phase measurement based on spectron shaping**

N. Karapetyan, M. Sukiasyan, H. Toneyan, A. Kutuzyan, L. Mouradian

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*Conference*

**Determination of the Spectral Phase of Femtosecond Pulses based on Frequency-to-Time mapping**

Minas Sukiasyan, Aghavni Kutuzyan

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*Patent*

**Լազերային գերկարճ իմպուլսների սպեկտրալ փուլի որոշման եղանակ**

Աղավնի Կուտուզյան, Մինաս Սուքիասյան, Վարդան Ավետիսյան, Մերի Քալաշյան

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*Conference*

**The influence of spectral phase noise in the laser pulse reconstruction**

Anna Avetisyan, Minas Sukiasyan, Arthur Kirakosyan, Aghavni Kutuzyan

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*Conference*

**Application of picosecond-delay laser pulse pairs for materials processing**

A.S. Yeremyan, M.L. Sargsyan, M.M. Sukiasyan, N.W. Martirosyan

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*Conference*

**Noise sensitivity in the spectral phase measurement technique based on dispersive Fourier transform**

M. Sukiasyan, A. Avetisyan, A. Kutuzyan

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*Conference*

**Evaluating the Impact of Linear Correction on Spectral Phase Reconstruction**

M. Papyan, L. Mikaelyan, M. Sukiasyan, A. Kutuzyan

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*Conference*

**Third Harmonic Generation as a Monitoring Tool for Precision Glass Processing**

M.L. Sargsyan, M.M. Sukiasyan, T.K. Sargsyan, A.S. Yeremyan

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*Conference*

**Formation of a Functionally Unique Type of Similariton in Optical Fibers**

Michael Papyan, Lilit Mikaelyan, Minas Sukiasyan, Aghavni Kutuzyan

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*Conference*

**Assessing the Influence of Linear Compensation on Reconstruction of the Spectral Phase Profile**

Lilit Mikaelyan, Michael Papyan, Minas Sukiasyan, Aghavni Kutuzyan

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*Conference*

**Effect of Weak Nonlinearity on Dispersion-Induced Pulse Broadening in Optical Fibers**

Aghavni Kutuzyan, Minas Sukiasyan, Vardan Avetisyan, Karen Apresyan, Meri Kalashyan

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