

# Minas Marat Sukiasyan

## Research Institute of Physics

Laboratory of Ultrafast Optics and Photonics

Researcher

23-32  
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## 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 [Генерація нового типа симілярітонов в оптичних 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*

**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

*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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