

# Minas Marat Sukiasyan

## Research Institute of Physics

Laboratory of Ultrafast Optics and Photonics  
Senior researcher

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## Education

Institution	CANDLE SRI
Faculty	Physics
Date	2016 - 2019
Degree name	PhD student

Institution	Yerevan State University
Faculty	Physics
Date	2014 - 2016
Degree name	Masters

Institution	Yerevan State University
Faculty	Physics
Date	2010 - 2014
Degree name	Bachelor

## Scientific Rank/degree

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

## Language skills

Հայերեն English

## Work experience

Institution	CANDLE
Period of time	2016 till now

<b>Rank/degree</b>	researcher
<b>Institution</b>	YSU
<b>Period of time</b>	2015 till now
<b>Rank/degree</b>	researcher

## Publications

### 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

### Article

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

A. Kutuzyan, V. Avetisyan, M. Sukiasyan

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

### 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

### Article

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

Minas Sukiasyan, Vardan Avetisyan, Aghavni Kutuzyan

Photonics 2023 1207

### 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

### 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

Article

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

M.M. Sukiasyan

Armenian Journal of Physics 2019 113-118

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

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

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>

Conference

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

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

Arsham Eremyan

Conference

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

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

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

Conference

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

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

*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 Սուկիասյան, Վարդան Ավետիսյան, Մերի Քալաջյան

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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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