

Laboratory of Mathematical Problems of Signal Processing

Institute of Mathematics and Mechanics,

National Academy of Sciences of Azerbaijan

BRIEF REPORT ON SCIENTIFIC & ORGANIZATIONAL ACTIVITIES FOR THE 2019

In 2019 2 research works have been done in the field of Frame theory and its applications by the employees of the Laboratory of Mathematical Problems of Signal Processing.

There are 5 employees in the laboratory.

1. Sadigova Sabina - PhD, associate prof.
2. Zabidov Zakir - senior scientific researcher
3. Bagirli Gemer - senior lab. assistant
4. Jafarova Sabina - senior lab. assistant (0.5)
5. Gadirova Xayala - lab. assistant

Every Tuesday and Thursday at 11.00 a.m., regularly holds seminars with the "Department of Non-Harmonic Analysis" and "Computational Mathematics and Computer Science " .

During the reporting period, the laboratory staff published 5 scientific articles (1 abroad) (TR-1, SCOPUS-1) and 12 theses (3 abroad) in the proceedings of various international conferences.

PROGRAMMES and GRANTS		
Scientific research programme launched by the NAS of Azerbaijan	Approximation by neural networks and some problems of frames	Zakir Zabidov (participant) Sabina Sadigova (participant)
1st Azeri-Russian International Grant Competition organized by the Science Development Foundation under the President of the Republic of Azerbaijan <i>(suspended since February 2019)</i>	Methods of the theory of functions in the theory of operators	Sabina Sadigova (participant)

06.09.2019 Contract between IMM of the NAS of Azerbaijan and Azercosmos Ltd.	NDVI analysis of spectral images	Zakir Zabidov (participant) Sabina Sadigova (participant) Xayala Gadirova (participant)
A project within the framework of the joint cooperation programme between NAS of Azerbaijan and The Scientific and Technological Research Council of Turkey ((TÜBİTAK) (agreed on 23.10.2019)	Frame properties of the system of eigenfunctions of a second order discontinuous differential operator	Zakir Zabidov (participant) Sabina Sadigova (participant)

Awards and certificates	
Winner of ANAS competition "Young women in science"	Sadigova Sabina
"Web of Science: international standards for modern scientific publications" by Thomson Reuters	

PEDAGOGICAL ACTIVITIES	
PhD, associate prof. Sabina Sadigova	Khazar University

Membership in organizing committees of international conferences	
PhD, associate prof. Sabina Sadigova	International Conference on Spectral Theory and Its Applications dedicated to the 80 th birthday of Academician Mirabbas Gasymov, Baku, Azerbaijan, 7-8 June 2019
	International Conference on Modern Problems of Mathematics and Mechanics, dedicated to the 60th anniversary of the Institute of Mathematics and Mechanics of the NAS of Azerbaijan, Baku, Azerbaijan, 23-25 October, 2019

SUCCESSFULLY DEFENDED MASTER THESES

Author	Title	Scientific Advisor

Xayala Gadirova	Wavelet analysis and its application to one-dimensional signal filtration	Prof. Bilal Bilalov, Corresponding Member of the NAS of Azerbaijan
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ADMISSION TO THE DOCTORATE OF PHILOPSOPHY PREPARATION

Jafarova Sabina	Supervisor: Corresponding Member of the National Academy of Sciences of Azerbaijan Bilal Bilalov
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SEMINARS

SEMINARS	
Tuesday and Thursday 11 ⁰⁰	Theory of frames and its applications

SOCIAL ACTIVITIES

SOCIAL ACTIVITIES	
PhD, Associate Prof. Sabina Sadigova	<ul style="list-style-type: none"> • Scientific secretary of Academic Council on Applied Mathematics of ANAS; • Member of the Council of Young Scientists and Specialists at the Institute of Mathematics and Mechanics, National Academy of Sciences of Azerbaijan; • Secretary of the Women's Council of the Institute of Mathematics and Mechanics of ANAS; • Member of Trade Union at the Institute of Mathematics and Mechanics, National Academy of Sciences of Azerbaijan; • Editorial Assistant of Azerbaijan Journal of Mathematics; • Executive Editor of Caspian Journal of Applied

	Mathematics, Ecology and Economics; <ul style="list-style-type: none">• Editorial Assistant of Journal of Contemporary Applied Mathematics.
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Sadigova Sabina Rahib	10

Head of the laboratory :

PhD, Associate Prof. Sabina Sadigova