

Report on the Seminar
 “Mathematics and Life Science”
 Held each second Friday in Kyiv Institute of Mathematics NAS Ukraine (IMath)

Date of meeting	Lecturer	Title of talk
2011-02-18	V. Semenov Scientific State Enterprise 'Delta'	Automatical recognitions of dry wheezes via autocorrelation function
2011-03-11	Viktor Novytskyi, Ulyana Lushchyk Institute of Mathematics of NAS of Ukraine	Mathematical approaches to applied hemodynamics
2011-03-25	Viktor Gerasymenko Institute of Mathematics of NAS of Ukraine	Hydrodynamic limit of nonlinear kinetic equations
2011-04-15	Eugene Nastenکو National Technical University of Ukraine 'Kyiv Polytechnic Institute'	Problems in modelling of nonlinear aspects of hemodynamics
2011-04-29	Olexandr Burylko Institute of Mathematics of NAS of Ukraine	Hodgkin-Huxley neuron model. Consequences and applications
2011-05-20	Rostyslav Bubnov Center for ultrasound diagnosis and interventional sonography of Clinical Hospital 'Feofaniya'	Abilities of fractal analysis of medical diagnostic images. Primary clinical experience
2011-09-16	Eugene Nastenکو Amosov National Institute of Cardiovascular Surgery	Biomedical application of selforganized criticality theory
2011-10-14	Vladimir Kalmykov Institute of Mathematical Machines and System Problems	A segment of a line and an arc of a curve in digital images. Mathematical and neurophysical aspects
2011-11-11	Yuriy Zelinskiy Institute of Mathematics of NAS of Ukraine	Certain problems of integral geometry in complex spaces
2012-02-03	Olga Kyselyova National Technical University of Ukraine 'Kyiv Polytechnic Institute'	Programming complex for blood circulation study
2012-02-17	Ulyana Lushchyk, Viktor Novytskyi Clinical Hospital 'Feofaniya'	Analytical mechanics models in the study of Circulatory system
2012-03-02	Tatyana Romanenko, Vladimir Kalmykov, Vitaliy Vishnevskiy Institute of Mathematical Machines and System Problems	Approximation of experimental data with parametrized curves

2012-04-20	A. Kopchak, M. Kryshchuk, V. Malanchuk, V. Eshchenko Bogomolets National Medical University	Immitational and computer modelling in dental and maxillofacial surgery
2012-05-25	Ulyana Lushchyk Clinical Hospital 'Feofaniya'	EEG as a method of estimations of brain processes: modelling, diagnostic and cure
2012-10-05	G. Shevchenko T. Shevchenko National University of Kyiv	Fractional and multifractions processes in natural sciences
2012-05-11	Eugene Nastenکو Amosov National Institute of Cardiovascular Surgery	Applications of information complexity theory to the analysis of complexity of biomedical sygnals. (Scientific report on the visit to Luebeck (Germany))
2012-03-23	Eugene Nastenکو National Technical University of Ukraine 'Kyiv Polytechnic Institute'	Cluster analysis procedures of recognition of functional dependencies and their applicaiton for identification of mathematical moldels of biological systems
2012-10-19	Olexiy Kulik Institute of Mathematics of NAS of Ukraine	Infinitely divisible random measures in models of theoretical neurobiology
2012-10-26	Olexiy Kulik Institute of Mathematics of NAS of Ukraine	Infinitely divisible random measures in models of theoretical neurobiology (continuation)
2012-11-09	Vladimir Krouglov Institute of Mathematics of NAS of Ukraine	Backpropagation for neural networks
2012-11-30	Anna Kyseleva National Technical University of Ukraine 'Kyiv Polytechnic Institute'	Context dependent management of saving energy in a microgridsystem
2012-12-07	Galyna Kriukova National University of Kyiv-Mohyla Academy	Investigation of partial synchronization in Kuramoto-Sakaguchi model
2012-12-07	Olexandr Makarenko Institute for applied system analysis	Mathematical models in life science. Short review of directions of author
2012-12-14	Vladimir Shelkovich Saint-Petersburg State University of Architecture and Civil Engineering	Delta-shock waves in quasilinear systems of conservative laws which modell physical and biological processes
2012-12-21	Anatoliy Omelyanenko Donetsky State Medical University of M. Gorky	Quantative electroencephalography - where we are now and what the physician expects

2012-12-21	Volodymyr Fenchenko B.Verkin Institute for Low Temperature Physics and Engineering of the National Academy of Sciences of Ukraine	Development of analysis methods of brain bioelectric activity from the point of view of deterministic chaos
2013-10-09	Vitaliy Yatsenko Space research institute	Synergetic approach to brain model and epilepsy prediction
2013-10-25	Eugeniya Semenova Institute of Mathematics of NAS of Ukraine	One adaptive discretization scheme for a wide class of semiiterative processes. Report on the work in frame of 7FP-project 'Mathematics for Life Sciences'
2013-10-25	Rostyslav Bubnov Center for ultrasound diagnosis and interventional sonography of Clinical Hospital 'Feofaniya'	Personalized, Prognostic and Profilactic Medicine (PPPM). Modern European Paradigm. Project of Ukrainian strategy
2013-11-08	Mykola Spivak, Nadiya Zholobak D.K. Zabolotny Institute of Microbiology and Virology of the NASU	Interaction problems of nanoparticles with biological objects and approaches to their solutions
2013-11-29	Volodymyr Koshmanenko Institute of Mathematics of NAS of Ukraine	Singular spectrum concept in the structure of living substance
2013-12-13	Vitaliy Velychko Glushkov Institute of Cybernetic of NAS of Ukraine	Increasing pyramidal network as the way of patterns search. An approach to the model of human's memory and thought
2014-01-31	Yuriy Teslya T. Shevchenko National University of Kyiv	Non-force interaction theory and its applications
2014-02-14	Genadiy Sandrakov T. Shevchenko National University of Kyiv	Averaging of some hydrodynamical problems
2014-03-14	Olexandr Pokutny Institute of Mathematics of NAS of Ukraine	The van der Pol Equation in Hilbert space. Critical case
2014-03-21	Igor Vlasenko Institute of Mathematics of NAS of Ukraine	Dynamics of internal maps
2014-04-04	Igor Nesteruk Institute of Hydromechanics NAS of Ukraine	Analysis of nonstationary blood flow in distinct sections of aorta using MRI data
2014-04-11	Oleksandr Vidybida Bogolyubov Institute for Theoretical Physics	Output stream of binding neuron with dissipation

2014-01-17	Eugene Nastenکو National Technical University of Ukraine 'Kyiv Polytechnic Institute'	Methodological specificity of application of mathematics in life sciences
2014-04-18	Anastasiya Panchuk Institute of Mathematics of NAS of Ukraine	Bifurcation structures fearutes of piecewise lineap maps
2014-04-25	Igor Dzeverin I. I. Schmalhausen Institute of Zoology	Stochastic models of complex phenotype structures transformations in biological evolution

Complete list of participants of the seminar:

	Name	Title	Institution
1	Anchishkin Dmitry	Dr.	Bogolyubov Institute for Theoretical Physics
2	Antoniouk Alexandra	Dr.	Institute of Mathematics of NAS of Ukraine
3	Burylko Olexandr	Dr.	Institute of Mathematics of NAS of Ukraine
4	Dudchenko Nataliia	Dr.	Semenenko Institute of Geochemistry, Mineralogy and Ore Formation NASU
5	Dzeverin Igor	Prof.Dr.	I. I. Schmalhausen Institute of Zoology
6	Eshchenko V.	Dr.	National Technical University of Ukraine 'Kyiv Polytechnic Institute'
7	Fenchenko Volodymyr	Dr.	B.Verkin Institute for Low Temperature Physics and Engineering of the National Academy of Sciences of Ukraine
8	Gerasymenko Viktor	Prof.Dr.	Institute of Mathematics of NAS of Ukraine
9	Goriunov Andrii	Dr.	Institute of Mathematics of NAS of Ukraine
10	Grushka Yaroslav	Dr.	Institute of Mathematics of NAS of Ukraine
11	Kalmykov Vladimir	Dr.	Institute of Mathematical Machines and System Problems
12	Kolomiychuk Oleg	Dr.	Institute of Mathematics of NAS of Ukraine
13	Kopchak A.	Dr.	Bogomolets National Medical University
14	Koshmanenko Volodymyr	Prof.Dr.	Institute of Mathematics of NAS of Ukraine
15	Krasnopolskaya Tatyana	Prof.Dr.	Institute of Hydromechanics NAS of Ukraine
16	Kriukova Galyna	Dr.	National University of Kyiv-Mohyla Academy
17	Kryshchuk M.	Dr.	National Technical University of Ukraine 'Kyiv Polytechnic Institute'
18	Kukush Alexander	Prof.Dr.	T. Shevchenko National University of Kyiv
19	Kulik Olexiy	Prof.Dr.	Institute of Mathematics of NAS of Ukraine
20	Kyseleva Anna	Dr.	National Technical University of Ukraine 'Kyiv Polytechnic Institute'
21	Kyselyova Olga	Dr.	National Technical University of Ukraine 'Kyiv Polytechnic Institute'
22	Lushchyk Ulyana	Prof.Dr.	Clinical Hospital 'Feofaniya'
23	Maiboroda Rostyslav	Prof.Dr.	T. Shevchenko National University of Kyiv

24	Makarenko Olexandr	Prof.Dr.	Institute for applied system analysis
25	Maksymenko Sergiy	Prof.Dr.	Institute of Mathematics of NAS of Ukraine
26	Malanchuk V.	Dr.	Bogomolets National Medical University
27	Masiuk Sergii	Dr.	Ukrainian Radiation Protection Institute
28	Melnik Taras	Prof.Dr.	Institute of Mathematics of NAS of Ukraine
29	Nastencko Eugene	Prof.Dr.	National Technical University of Ukraine 'Kyiv Polytechnic Institute', Amosov National Institute of Cardiovascular Surgery
30	Nesteruk Igor	Dr.	Institute of Hydromechanics NAS of Ukraine
31	Novytskiy Viktor	Dr.	Institute of Mathematics of NAS of Ukraine
32	Omelyanenko Anatoliy	Dr.	Donetsky State Medical University of M. Gorky
33	Osipchuk Tatiana	Dr.	Institute of Mathematics of NAS of Ukraine
34	Panchuk Anastasiya	Dr.	Institute of Mathematics of NAS of Ukraine
35	Pokutny Olexandr	Dr.	Institute of Mathematics of NAS of Ukraine
36	Popov Andrey	Dr.	T. Shevchenko National University of Kyiv
37	Pylypenko Andriy	Prof.Dr.	Institute of Mathematics of NAS of Ukraine
38	Romanenko Tatyana	Dr.	Institute of Mathematical Machines and System Problems
39	Sadovyj Dmytro	Dr.	T. Shevchenko National University of Kyiv
40	Sakhno Lyudmyla	Dr.	T. Shevchenko National University of Kyiv
41	Samoilenko Igor	Dr.	Institute of Mathematics of NAS of Ukraine
42	Sandrakov Genadiy	Prof.Dr.	T. Shevchenko National University of Kyiv
43	Semenov V.	Dr.	Scientific State Enterprise 'Delta'
44	Semenova Eugeniya	Dr.	Institute of Mathematics of NAS of Ukraine
45	Shevchenko G.	Dr.	T. Shevchenko National University of Kyiv
46	Sivak Olena	Dr.	T. Shevchenko National University of Kyiv
47	Spivak Mykola	Dr.	D.K. Zabolotny Institute of Microbiology and Virology of the NASU
48	Sudakov Olexandr	Dr.	T. Shevchenko National University of Kyiv
49	Sulyk Roman	Dr.	Shupyk National Medical Academy of Postgraduate Education
50	Teplins'kiy Olexiy	Dr.	Institute of Mathematics of NAS of Ukraine
51	Teslya Yuriy	Prof.Dr.	T. Shevchenko National University of Kyiv
52	Torbin Grygoriy	Prof.Dr.	Institute of Mathematics of NAS of Ukraine
53	Velychko Vitaliy	Dr.	Glushkov Institute of Cybernetic of NAS of Ukraine
54	Vidybida Oleksandr	Prof.Dr.	Bogolyubov Institute for Theoretical Physics
55	Vishnevskiy Vitaliy	Dr.	Institute of Mathematical Machines and System Problems
56	Vlasenko Igor	Dr.	Institute of Mathematics of NAS of Ukraine
57	Zelinskiy Yuriy	Prof.Dr.	Institute of Mathematics of NAS of Ukraine
58	Zholobak Nadiya	Prof.Dr.	D.K. Zabolotny Institute of Microbiology and Virology of the NASU