

Talks and presentations given by Alexey Zaikin

(04/2019: overall 113 presentations since 1995, 33 invited talks, in UK, Germany, Russia, Italy, Spain, France, USA, Australia, Belgium, Holland, Sweden, India, China)

Presentations in 2019:

113. Invited Talk, “The brain as a complex network of networks: where is intelligence and consciousness?”, workshop “Understanding Oscillatory Dynamics”, 1-4 April, 2019, Xi'an, China.

Presentations in 2018:

112. Volga Neuroscience Meeting 2018, invited organization of minisymposium “Systems biology and age-related diseases”, and talk “The brain as a complex network of networks: where is intelligence and how to detect if something goes wrong”.

111. Invited Talk, “Are astrocytes responsible for consciousness”, workshop “Understanding Oscillatory Dynamics”, Feb 15-16 2018, Potsdam, Germany.

Presentations in 2016:

111. Ship conference, organization and talk.

110. Organization of minisymposium “Noisy dynamics in biological networks”, Dynamical Days 2016, Corfu, 4-12 June 2016.

109. Talk “Noise and intelligence in intracellular gene-regulatory networks”, Dynamical Days 2016, Corfu, 4-12 June 2016.

108. Seminar Talk, “Noise and intelligence in intracellular gene-regulatory networks”, Feb 3, 2016 Universitat de Barcelona, Spain.

107. Invited Talk, “Noise and intelligence in intracellular gene-regulatory networks”, Emphasis Workshop “Dynamics in Networks with Special Properties”, Jan. 25-29, 2016, MBI, Columbus USA.

Presentations in 2014:

106. Seminar at technical University Berlin, Eugeny Wigner Colloquium, 18.12.14, “Noise and Intelligence in intracellular gene-regulatory networks”.

105. Talk (Presented by Alexey Polovinkin) “Solving Problems of Clustering and Classification of Cancer Diseases Based on DNA Methylation Data”, OGRW2014, 9th Open German-Russian Workshop on Pattern recognition and Image Understanding”, 1-5.12.2014, Koblenz, Germany

104. Poster (Presented by Rebecca Spenser) R. Spenser, A. Zaikin, O. Blyuss, A. David on behalf of EVERREST Consortium, “Developing a Therapy for Severe Early Onset Fetal Growth Restriction: The Challenges of Designing a Multinational Phase I/IIa Clinical Trial Protocol”, the International Fetal Medicine and Surgery Society Conference in Cape Cod, 8.09.14, and at the Fetal Growth Conference in Oxford, 3.10.14 (first prize for poster).

103. Invited talk, “Noise and intelligence in intracellular gene-regulating networks”, The Infection and Immunity Computational Hub, “Novel Insights from Computational Approaches to Infection and Immunity”, Royal Free Hospital, London, 30 June 2014.

102. Small introduction talk, “Message from Systems Science: Well-known systems can behave in very unexpected way”, Breakout session on Infection, immunity, and antimicrobial resistance, 4th Annual Symposium, Computational Life & medical sciences network, 16 June 2014.

Presentations in 2013:

101. Seminar talk, “Intracellular genetic intelligency and effect of stochasticity”, Leeds University, Mathematical Biology and Medicine seminars, 23 October 2013.

100. Invited lecture “Unexpected dynamics of gene regulatory networks”, Summer School on Bioinformatics 2013, 29 July-4 August.

99. Organization of minisymposium “Synthetic Biology” on IV International Symposium, Topical Problems of Biophotonics – 2013, 21-27 July 2013.

98. Invited Talk, “Coupling, Synchronization and Noise in AGNLD”, Nonlinear Data Analysis and Modeling: Advances, Applications, Perspectives, Conference on the occasion of Prof. J. Kurths 60th birthday, 21-22 March, Potsdam, Germany.

Presentations in 2012:

97. Seminar Talk, “Delayed bifurcations in gene-regulating decision making networks”, Nijni Novgorod University, 20 Dec 2012.

96. Plenary Invited Talk, one day meeting “Modelling complex systems in biology, medicine and physiology”, “Delayed bifurcations in gene-regulating decision making networks”, Manchester University, 12 Dec 2012.

95. Talk, “Delayed Bifurcations in Gene-regulating Decision Making Networks”, Dynamical Systems: 100 years after Poincare, Gijon, Spain, 3-7 September 2012.

94. Invited talk, “New Functions of the Proteasome and its Role in Immunology”, Multi-Scale Physics of Lymphocyte Development, International Seminar 6-31 August 2012.

93. Invited talk, “Delayed Bifurcations in Cellular Decision Genetic Regulating Networks”, Multi-Scale Physics of Lymphocyte Development, International Seminar 6-31 August 2012.

92. Invited talk, “Delayed Bifurcations in Genetic Systems”, 7th Crimean School and Workshop “Emergent Dynamics of Oscillatory Networks” in Mellas Crimea Ukraine, 20-27 May 2012.

Presentations in 2011:

91. Organization of (and talk in) Cancer Systems Biology meeting “Cellular decision making: theory vs experiment”, UCL, 14 October 2011.

90. Invited talk, “Speed dependent decision making in genetic networks”, XXXI Dynamics Days Europe, Oldenburg, Germany, 12-16 September 2011.

89. Invited talk, “Effect of noise and asymmetry on decision in genetic regulatory networks”, **Physcon 2011**, 5th International Scientific conference on Physics and Control, Leon, Spain, 5-8 September 2011.

88. Organization of the invited minisymposium (with E. Ullner), “Noise and oscillations in biological systems”, **Physcon 2011**, 5th International Scientific conference on Physics and Control, Leon, Spain, 5-8 September 2011.

87. Invited talk, “New functions of the proteasome and its role in immunology”, III International Symposium, Topical Problems of biophotonics – 2011, St. Petersburg-Nizhny Novgorod, 16-22 July 2011.

86. Inaugural lecture, “Systems medicine: dealing with complexity”, UCL, 9 May 2011.

Presentations in 2010:

85. Invited talk, “Symmetry breaking in decision regulatory networks”, Biosignal 2010, Berlin, Germany, 14-16 July 2010.

Presentations in 2009:

84. Seminar talk, IfWH Gyn group seminar, 22.10.2009, UK.

83. Invited talk “*Application of mathematical methods to modelling of 20S proteasome function and analysis of proteasomal degradation data*”, Volkswagenstiftung Statussymposium 2009, Mainz, 21-23 September 2009, Germany.

82. Invited talk, Rhythmicity of genetic networks: interplay of feedback, phase repelling quorum sensing, size and stochasticity, Summer School on Computational Neuroscience and Gene Circuits, Warwick University, 3-7 July, 2009.

81. Invited talk, “Reverse Engineering or Proteasomal Translocation Rates”, First Workshop of BBSRC MATSY network I2M: Immunology, Imaging and Modelling, School of Mathematics, University of Leeds, 2-3 Apr. 2009.

80. Talk “Influence of noise and coupling on signal processing in neural oscillators population”, Topical problems of biophotonics, Nizhny Novgorod, Russia, 19-24 July 2009.

Presentations in 2008:

79. Poster "Proteamal: a new tool for in vitro digestion assay performed by 20S immunoproteasome and PA28", India-UK Frontiers of Science Symposium, March 4-7, 2008, Hyderabad, India.
78. Poster "Detuning-dependent effects in synthetic genetic circuits: quantized cycling and oscillation quenching dominance", BioSysBio (Synthetic Biology, Systems Biology and Bioinformatics) 2008, Imperial College, 20-22 April 2008.
77. Poster "Proteasomal degradation of proteins: reconstruction of translocation rates", Unsolved Problems of Noise 2008, Lion, France.
76. Seminar talk in UCL

Presentations in 2007:

75. Seminar talk in Magdeburg University, Germany.
74. Poster (presented by A.Koseska)
73. Organization of the minisymposium "Self-organization and noise in synthesis and degradation of proteins", Physcon 2007, 03.-9-07.09, Potsdam, Germany.
- 72. Invited talk** "Variety of dynamics regimes in synthetic genetic oscillators", on the themed session "Biodynamics", Dynamics Days Europe 2007, Loughborough 09.07-13.07.07, UK
- 71. Invited talk**, "Proteamal: a new tool for in vitro digestion assay performed by 20S immunoproteasome and PA28", Workshop on computer simulations of soft matter and biosystems", Roprecht-Karls-Universitaet Heidelberg, Germany, 14.-16.03.2007.
70. Poster "Proteamal: a new tool for in vitro digestion assay performed by 20S proteasome and PA28 α - β ", 3rd Charite Zeuthener See Workshop, "The function of the proteasome system in MHC Class I Antigen Processing", Zeuthener See, Teikyo University, Germany, April 20-23rd 2007.
69. Seminar talk, "Doubly stochastic effects", Mathematics Department, University of Essex, 02.2007.
68. Seminar talk, "Mathematical Modelling of protein degradation by the proteasome", Department of Biological science, University of Essex, 02.2007.

Presentations in 2006:

- 67. Invited Talk**, "Exploiting noise in the cellular protein turnover: degradation in the proteasome and expression in genetic networks", Wyboston (UK), 30.03-02.04.06.
- 66. Invited talk**, "Quantitative model of the protein degradation by the proteasome", BioSim Conference, Potsdam, 24-25.04.2006.
65. Seminar talk, "Mathematical modelling of protein degradation by the proteasome", Essex University, 24.05.2006.
64. Seminar talk, "Mathematical modelling of protein degradation by the proteasome", Leeds University, 06.06.2006.
63. Seminar talk, "Quantitative model of the protein degradation by the proteasome", Humboldt University, 13.06.2006.
- 62. Invited talk**, "Control of synchronization and clustering in noisy relaxator genetic oscillators coupled via quorum sensing", Noise in Life 2006, ESF workshop on stochastic dynamics in cell dynamics, Barcelona, 15-17.06.2006.

61. Invited talk, “Quantitative modeling of the protein degradation by the proteasome”, Bio-systems conference, Berlin, 26-29.06.2006.

60. Invited talk, “Variety of dynamical regimes in noisy relaxatory genetic oscillators”, International seminar and workshop “Constructive role of noise in complex systems”, Dresden, 13.07.2006.

59. Invited talk, “A mathematical model of protein degradation and fragment production by the proteasome”, International seminar and workshop “Constructive role of noise in complex systems”, Dresden, 18.07.2006.

58. Contributed talk, “Variety of Dynamical Regimes in Noisy Relaxatory Genetic Oscillators”, 2nd BioSim conference, Palma de Mallorca, 18.10-21.10.2006.

57. Seminar talk, “Proteamalg: a new tool for in vitro digestion assay performed by 20S immunoproteasome and PA28 α - β ”, Lab of immunology, University of Bologna, Dep. Of experimental pathology, 18.12.2006, Bologna, Italy.

Presentations in 2005:

56. Seminar talk “Noise-induced Effects in Complex Biosystems”, Heidelberg University, Heidelberg, Germany, 25.02.2005.

55. Invited talk, “Constructive effects of noise in models of complex biosystems: examples”, Marie Curie EST Workshop, Golm, Germany, 7-8 April, 2005.

54. Visiting scientific discussion meeting, “Bioinformatic - from molecules to systems”, London, UK, 4-5 April 2005.

53. Poster, “Optimal length transport hypothesis to model proteasome product size distribution”, 6th International Workshop on Proteasomes, Clermont-Ferrand, France, April 24-26 2005.

52. Seminar talk “Noise-induced Effects in Complex Biosystems”, Barcelona-Terrassa, Spain, 16.06.2005.

51. Report talk, BioSim Joint Steering Group Meeting, Copenhagen, Denmark, 27.05.2005.

50. Contributed talk “Optimal length transport hypothesis to model proteasome product size distribution”, International Seminar & Workshop on Nonlinear Dynamics in Biophysics, Dresden, Germany, June 27-July 1, 2005.

49. Poster (presented by A. Koseska), “Control of gene expression in ensemble of genetic oscillators”, International Seminar & Workshop on Nonlinear Dynamics in Biophysics, Dresden, Germany, June 27-July 1, 2005.

48. Contributed Talk (instead of J. Kurths) “Noise-induced suppression of malfunction neural oscillations”, European Conference on Mathematical and Theoretical Biology, Dresden, Germany, July 18-22, 2005.

47. Poster “Optimal length transport hypothesis to model proteasome product size distribution”, XXV Dynamics Days Europe 2005, Berlin, Germany, July 25-28, 2005.

46. Poster (presented by E. Ullner) “Noise-induced suppression of malfunction neural oscillations”, XXV Dynamics Days Europe 2005, Berlin, Germany, July 25-28, 2005.

45. Invited talk, “Stochastic modeling the proteasome function”, Summer school “Communication in Biological Systems: From the Molecule to the Organism in Its Environment”, Hircheegg, Austria, 9-16 September, 2005.

44. Seminar Talk “Mathematical modelling of complex biological systems”, Exeter University, Exeter, UK, 15.09.2005.

43. Poster, “Optimal transportation hypothesis to model proteasome product size distribution”, 13th International IEEE Workshop on Nonlinear Dynamics of Electronic Systems, University of

Potsdam, Germany, September 18th-22nd 2005.

42. Contributed talk "Stochastic Modelling of the Proteasome", The 1st meeting of the BIOSIM Network of Excellence, Mallorca, Spain, 6-8 October 2005.

41. Invited talk, "Mathematical Modelling of the Proteasome Function", Symposium of SFB 555 "Komplexe Nichtlineare Prozesse", Fritz-Haber-Institut der MPG, Berlin, Germany, 18.11.2005.

Presentations till 2005:

40. Poster, "Modeling of Bimanual Rhythmic Movements", 147. WE-Heraeus Seminar in Schmerwitz (28.08.95-1.09.95).

39. Poster, "Noise-induced oscillations in the Olsen-Schaffer model", 163 WE-Heraeus Seminar in Berlin-Rahnsdorf, 1996.

38. Poster, "Noise-induced oscillations in simple systems", 163 WE-Heraeus Seminar in Berlin-Rahnsdorf, 1996.

37. Poster, "Noise-induced phase transition in a pendulum. Distinguishing the noise-induced and deterministic oscillations.", Dynamic Days, July 10-13, Lyon, France 1996.

36. Talk, "Noise-induced oscillations in simple systems", Minisymposium on Complex Phenomena in Cognitive Processes, October 18-19, Potsdam, 1996.

35. Talk "Random and chaotic oscillations in the model of childhood infections caused by the seasonal variations of the contact rate", International Conference on Applied Nonlinear Dynamics near the Millennium, San-Diego, 1997.

34. Talk "Control of noise-induced oscillations in a pendulum", Third EuroConference on Nonlinear Dynamics in Physics and Related Sciences, Control of chaos: new perspectives in experimental and theoretical nonlinear science, Montecatini Terme, Italy, 16-18 May, 1997.

33. Talk "Influence of Additive Noise on Noise-induced Phase Transitions", Workshop on Nonequilibrium Dynamics", the Center for Nonlinear Studies, Los-Alamos, 20-22 April, USA, 1998.

32. Poster "Influence of Additive Noise on Noise-induced Phase Transitions", International workshop on "Fluctuations far from Equilibrium: Noise Induced Transport", Dresden April 19-23, Germany.

31. Talk "Noise-induced Phase Transitions in Nonlinear Oscillators", CASYS'98, The Second International Conference on Computing Anticipatory Systems, Liege, Belgium, August 10-14, 1998.

30. Talk "Influence of Additive Noise on Noise-induced Phase Transitions", CASYS'98, The Second International Conference on Computing Anticipatory Systems, Liege, Belgium, August 10-14, 1998.

29. Poster, 204. WE-Heraeus-Seminar, "Elementare Mechanismen komplexer Strukturen", 2.-4. November 1998 im Physikzentrum Bad Honnef, Germany.

28. Talk "Ordering Role of Additive Noise in Extended Media", Fruehjahrstagung des Arbeitskreises Festkoerperphysik bei der DFG, Muenster 1999, 22-26 Maerz 1999, Germany.

27. Invited talk, "Additive Noise and noise-induced nonequilibrium phase transitions", 2nd International Conference on "Unsolved Problems of Noise and fluctuations (UPoN'99)", 11-15th July 1999, Adelaide, Australia.

26. Talk "Modeling Cognitive Control in Simple Movements", 3rd International Conference on "Computing Anticipatory Systems", HEC Liege, Belgium, August 9-14, 1999.

25. Poster "Order Induced by Additive Noise", International Conference on "STOCHASTIC AND CHAOTIC DYNAMICS IN THE LAKES", Ambleside (UK) 16-20 August 1999.
24. Talk "Doubly Stochastic Resonance", 1. Dresdner Herbstseminar des Arbeitskreises Nichtlineare Physik, "Nichtgleichgewichtsprozesse in neuen Materialien", Dresden 05-08 November, 2000.
23. Talk "Doubly Stochastic Resonance", ESA project meeting, 2001.
- 22. Invited talk** "Doubly Stochastic Resonance and Noise induced propagation in monostable media", CESCA CEPBA meeting, Edinburgh, 2001.
21. Poster "Doubly Stochastic Resonance and Noise induced propagation in monostable media", Dresden, 2001.
20. Talk "Lates and last news on resampling problem", ESA meeting Berlin.
- 19. Invited talk**, "Noise induced propagation in monostable media", Mini-Symposium on Neuronal Dynamics and Sensory Processing Coordinators: L. Schimansky-Geier, J. A. Freund, and A. Herz Date: July 20.-21. 2001 Location: R523, Institute for Biology, Chausseestr. 117, 10115 Berlin
18. Poster "Noise-induced propagation in monostable media", International Workshop and seminar on "Control, Communication, and Synchronization in Chaotic Dynamical Systems", 14.10.2001-19.11.2001, Dresden, Germany.
17. Presented by Luis Lopes, Poster "Stochastic resonance and communications", International Workshop and seminar on "Control, Communication, and Synchronization in Chaotic Dynamical Systems", 14.10.2001-19.11.2001, Dresden, Germany.
- 16. Invited lecture**, "Noise-induced order in nonlinear systems", Workshop and seminar on "Control, Communication, and Synchronization in Chaotic Dynamical Systems", 31.10.2001, Dresden, Germany.
15. Talk "Transfer of symbolic dynamics from 2D to 3D bone data sets", ESA-Meeting, Potsdam, 18.12.2001.
14. Talk "Application of measures of complexity for the quantification of bone structure in 3D", The ESA meeting "Bone Jamboree", March 12-13, 2002, ESA-ESTEC Noordwijk, Holland.
13. Talk "Bone modeling and structural complexity measures", the Symposium "Life in Space for Life on Earth", Stockgolm 2002.
- 12. Invited Talk**, "Doubly stochastic effects", TAM (TRACS-ACCESS-MINOS) User group Meeting 2002, 28 June, Bologna, Italy
11. Poster "Bone Modeling and structural measures of complexity", Dynamics Days Europe, Heidelberg, July 15-19, 2002
10. Poster "Quantification of 2D bone structure", presented by J. Schneider, Dynamics Days Europe, Heidelberg, July 15-19, 2002
9. Poster "Vibrational resonance and propagation in excitable systems", presented by E. Ullner, Dynamics Days Europe, Heidelberg, July 15-19, 2002
8. Talk "Doubly Stochastic Effects", Dynamics Days Europe, Heidelberg, July 15-19, 2002
7. Talk "Stochastic processes and econophysics", Aareal Bank, Wiesbaden, 19 Oktober, 2002.
6. Talk "Doubly stochastic effects", 3. Dresdner Herbstseminar des Arbeitskreises Nichtlineare Physik, "Nichtlineare stochastische Prozesse", Dresden Germany, December 1-4, 2002.
5. Invited Talk "Doubly stochastic effects", Symposium des Sfb 555 "Komplexe Nichtlineare Prozesse", Berlin Germany, January 17, 2003.
4. Talk "2D and 3D bone modelling for analysis of changes in the bone architecture and for

evaluation of structural measures”, 2nd European Congress ”Achievements in Space Medicine into Health Care Practice and Industry”, Berlin-Adlershof, 27-29.03.2003.

3. Invited Talk ”Doubly stochastic systems”, Workshop on Oscillator Dynamics, 19th Jan 2004, University of Exeter,UK

2. Talk “Peptide size dependent active transport in the proteasome”, SPIE, Second International Symposium on Fluctuations and Noise, 25-28 May 2004, Gran Canaria, Spain.

1. Invited Talk “Stochastic modeling of complex biosystems: New approaches”, International Symposium on Physics of Biological Systems, Dresden, Germany, August 04-06, 2004.