

## CURRICULUM VITAE

### Education

- 1999 PhD (Mathematics and Physics)  
Intl. Inst. for Earthquake Prediction Theory and Mathematical Geophysics,  
Russian Academy of Sciences, Moscow  
Advisors: Prof. V.F. Pisarenko, Prof. V.I. Piterbarg.
- 1995 MSc (Probability and Statistics)  
Lomonosov Moscow State University, Dept. of Probability Theory  
Advisor: Prof. V.I. Piterbarg.

### Fields of interest

Self-similar trees; network transport; aggregation (coagulation) processes; multiscale methods of time series analysis; random sums of heavy-tailed variables; delay dynamical systems; statistical seismology; geo-statistics

### Professional experience

- 2009 – present Associate Professor, Dept. of Mathematics and Statistics,  
University of Nevada, Reno
- 2009 – 2010 Secretary, AGU Natural Hazards Focus Group
- 2006 – 2009 Assistant Professor, Dept. of Mathematics and Statistics,  
University of Nevada, Reno
- 2001 – 2006 Assistant Researcher, Institute of Geophysics and Planetary Physics  
University of California Los Angeles
- 1999 – 2001 Postdoctoral Fellow, Institute of Geophysics and Planetary Physics  
University of California Los Angeles
- 1994 – 1999 Research Scientist, International Institute of Earthquake Prediction Theory  
and Mathematical Geophysics, Russian Academy of Science, Moscow

### Publications

34 papers in peer-refereed journals, 57 published abstracts.

### Course development

- Statistics: Discrete Methods*  
Dept. of Math & Stat. (UNR STAT453/653), 2007
- Time Series*  
Dept. of Math. & Stat. (UNR STAT 758), 2006
- Paradoxes of Random Events*  
UCLA Fiat Lux Seminar (UCLA STATS 19), 2005
- Introduction to Statistical Methods for Physical Sciences and Engineering*  
Dept. of Statistics, UCLA (UCLA STATS 14), 2004
- Geo-complexity and Earthquake Prediction*  
Earth and Space Sciences Dept. UCLA (with Prof. V. Keilis-Borok), 2002-2005
- Statistical Methods in Geophysical Sciences*  
MITPAN, Russian Ac. Sci., 2000

### Teaching

- Fall 2009 (UNR STAT 453/653): *Statistics: Discrete Methods*
- Fall 2009 (UNR MATH/STAT 352): *Probability and Statistics*
- Spring 2009 (UNR MATH/STAT 352): *Probability and Statistics*
- Spring 2009 (UNR STAT 755): *Multivariate Statistics*
- Fall 2008 (UNR STAT 452/652): *Statistics: Continuous methods*
- Fall 2008 (UNR STAT 758): *Time Series Analysis*
- Spring 2008 (UNR MATH/STAT 352): *Probability and Statistics*
- Spring 2008 (UNR MATH 792): *Topics in Probability*
- Fall 2007 (UNR MATH/STAT 352): *Probability and Statistics*
- Fall 2007 (UNR STAT 453/653): *Statistics: Discrete Methods*

Spring 2007 (UNR MATH/STAT 352): *Probability and Statistics*  
Spring 2007 (UNR MATH 176): *Calculus for Business*  
Fall 2006 (UNR STAT 758): *Time Series Analysis*  
Fall 2005 (UCLA STATS 19): *Paradoxes of Random Events*  
Spring 2005 (UCLA STATS 110A): *Applied Statistics*  
Spring 2005 (UCLA STATS 189): *Paradoxes in Theory of Probability and Statistics*  
Fall 2004 (UCLA STATS 14): *Introduction to Stat. Methods for Phys. Sci. and Engineering*  
Fall 2000, Russian Ac. Sci.: *Statistical Methods in Geophysical Sciences*

TA:

Spring 2005 (UCLA ESS 204), Winter 2004 (UCLA ESS 275), Spring 2003 (UCLA ESS 275),  
Spring 2002 (UCLA ESS 298) (*Geo-complexity and Earthquake Prediction*, by V. Keilis-Borok)

### **Advising**

Michael Weinzweig (grad), UNR, Dept. Math. & Stat, 2009 –  
Sayaka Olsen (grad), UNR, Dept. Math & Stat, 2007 –  
Tyson Reed (grad), UNR, Dept. Math & Stat, 2008  
Renee Torres (grad), UNR, Dept. Math & Stat, 2007-2008  
Ellen Webb (undergrad), UNR, Dept. Math & Stat, 2007-2008  
Brehnen Wong (grad), UNR, Dept. Math & Stat, 2007-2008  
Suresh Kumar (grad), UNR, Dept. Math & Stat, 2006-07  
Henry Lam Wong (Post-Doc), IGPP, UCLA, 2004 – 2005

### **Academic services**

Colloquium committee, Dept. Math. & Stat., UNR, 2008 – (member)  
Curriculum committee, Dept. Math. & Stat., UNR, 2006-08 (member), 2008- (chair)  
PhD program committee, Dept. Math. & Stat., UNR, 2006-08 (member)  
Colloquia committee, IGPP/UCLA, Fall 2005 (member), Spring 2006 (chair)

### **Conference organizing**

“*Development and Predictability of Extreme Events in Complex Systems*” (NG03)  
AGU Joint Assembly, “The Meeting of the Americas”,  
May 24-27, 2009, Toronto, Ontario, Canada  
6<sup>th</sup> International Workshop on Statistical Seismology (advisory board)  
April 12-16, 2009, Granlibakken conference center, Lake Tahoe, CA  
“*Scaling, cascades and self-organized criticality in Earthquakes: Damage mechanics  
and predictability*”  
EGS-AGU-EUG Joint Assembly, Nice, France 6-11 April, 2003.  
“*Scaling, Cascades and Predictability of Earthquakes*” (session NG62B)  
Fall AGU Meeting, San-Francisco, December 6-10, 2002.

### **Editorial services**

Associate Editor for *Journal of Environmental Statistics*

### **Review services**

Springer-Geosciences, Chapman & Hall/CRC-Statistics,  
*Physical Review Letters (PRL)*, *Physical Review E (PRE)*, *Geophysical Research Letters (GRL)*,  
*Nonlinear Processes in Geophysics (NPG)*, *Pure and Applied Geophysics (PAGEOPH)*,  
*Geophysical Journal International (GJI)*, *Journal of Geophysical Research (JGR)*,  
*Tectonophysics*, *Earth and Planetary Science Letters*, *Communications in Statistics –  
Simulation and Computation*, *Communications in Nonlinear Science and Numerical  
Simulations*, *Information Sciences (INS)*, *Earth, Planets, and Space*

### **Professional membership**

Institute of Mathematical Statistics (IMS)  
American Geophysical Union (AGU)  
Southern California Earthquake Center (SCEC)

### **Research grants**

2009-2010 *Time-dependent modeling of seismic moment release in San Andreas Fault --  
Great Basin System*,  
Southern California Earthquake Center (SCEC), PI (\$20,000)

- 2009-2010 *Investigating temporal changes in the earthquake magnitude distribution*, Southern California Earthquake Center (SCEC), PI (\$12,000)
- 2009-2010 *Correlation between seismic clustering properties and regional physical conditions*, Southern California Earthquake Center (SCEC), PI (\$15,000)
- 2008-2010 *Modeling seismic moment release in San Andreas Fault – Great Basin system*, Southern California Earthquake Center (SCEC), PI (\$20,000)
- 2007-2010 *Collaborative Research: Robust climate projections and stochastic stability of dynamical systems*, DOE Grant ER64440, PI (\$60,000)
- 2006-2008 *Subjective decision making in presence of uncertainties – a theoretical approach*, Junior Faculty Research Grant, UNR, PI (\$15,000)
- 2006-2007 *Statistical modeling of seismic moment release in San Andres fault system*, Southern California Earthquake Center (SCEC), PI (\$9,999)
- 2006-2009 *CMG Collaborative Research: Stochastic Quantization for Modeling the Dynamics of Regional Seismicity*, NSF ATM 0620838, PI (\$247,869)
- 2005-2006 *Estimating the long-term rate of seismic moment release from the observed seismicity*, Southern California Earthquake Center (SCEC), PI (\$16,998)
- 2004-2005 *Development of Reverse Detection of Precursors Tutorial*, Southern California Earthquake Center (SCEC), Co-PI (\$20,000)

**Personal info:** born on March 6, 1973 in the city of Chelyabinsk, Russia; married, one child; Russian citizen; US permanent resident

## Publications

### A. Preprints

1. Zaliapin, I., E. Foufoula-Georgiou, and M. Ghil (2009) Transport on river networks: A dynamical approach. [arXiv:0902.1554v1](https://arxiv.org/abs/0902.1554v1)
2. Gabrielov, A., V. Keilis-Borok, and I. Zaliapin (2008) Predictability of extreme events in a branching diffusion model. [arXiv:0708.1542v1](https://arxiv.org/abs/0708.1542v1)

### B. Papers

1. Semenova, I., A. Burakov, N. Berardone, I. Zaliapin, T. Svitkina, A. Kashina, and V. Rodionov (2008) Actin dynamics is essential for myosin-based transport of membrane organelles. *Current Biology*, 18, 1-6. doi: 10.1016/j.cub.2008.08.070
2. Zaliapin, I., A. Gabrielov, V. Keilis-Borok, and H. Wong (2008) Clustering analysis of seismicity and aftershock identification. *Phys. Rev. Lett.*, 101, 018501. doi: 10.1103/PhysRevLett.101.018501
3. Ghil, M., I. Zaliapin, and S. Thompson (2008) A delay differential model of ENSO variability: Parametric instability and the distribution of extremes. *Nonlin. Proc. Geophys.*, 15, 417-433.
4. Gabrielov, A., V. Keilis-Borok, Y. Sinai, and I. Zaliapin (2008) Statistical properties of the cluster dynamics of the systems of statistical mechanics. *ESI Lecture Notes in Mathematics and Physics: Boltzmann's Legacy*, European Mathematical Society, G. Gallavotti, W. Reiter and J. Yngvason (Eds.), 203-216.
5. Ghil, M., I. Zaliapin, and B. Coluzzi (2008) Boolean Delay Equations: A Simple Way of Looking at Complex Systems. *Physica D*, 237, 2967-2986. doi:10.1016/j.physd.2008.07.006.
6. Slepchenko, B., I. Semenova, I. Zaliapin, and V. Rodionov (2007) Switching of membrane organelles between cytoskeletal transport systems is determined by regulation of the microtubule-based transport, *J. Cell Bio.*, doi: 10.1083/jcb.200705146.
7. Keilis-Borok, V., A. Soloviev, A. Gabrielov, and I. Zaliapin (2006) Change of scaling before extreme events in complex systems. *Pontificae Academiae Scientiarum, Acta 19, The Proceedings of the Plenary Session on Predictability in Science: Accuracy and Limitations*, 3-6 November 2006, 37-45.
8. Ghil, M., et I. Zaliapin (2006) Une nouvelle source de fractales: les équations booléennes avec retard, et leurs applications aux sciences de la planète, in *L'irruption des géométries fractales dans les sciences, Une apologie de l'oeuvre de Benoît Mandelbrot*, Editions de l'Académie Européenne Interdisciplinaire des Sciences, Paris, 161-187. (In French)
9. Cvitanic, J., B. Rozovskii, and I. Zaliapin (2006) Numerical estimation of volatility values from discretely observed diffusion data, *Comp. Finance*, 9(4), 1-36.
10. Zaliapin, I., H. Wong, and A. Gabrielov (2006) Hierarchical Aggregation in Percolation Model, *Tectonophysics*, 413, 93-107.
11. Keilis-Borok, V., P. Shebalin, A. Gabrielov, D. Turcotte, and I. Zaliapin (2006) Short-term earthquake prediction by reverse analysis of lithosphere dynamics, *Tectonophysics*, 413, 63-75.
12. Cvitanic, J., R. Liptser, B. Rozovskii, and I. Zaliapin (2005) Filtering volatility from data observed at random time intervals, *Proceedings of the 7th Workshop on Stochastic Numerics, Research Institute for Mathematical sciences, Kyoto University, Japan*, pp. 1-25.
13. Zaliapin, I., Y. Kagan, and F. Schoenberg (2005) Approximating the distribution of Pareto sums, *Pure. Appl. Geophys.*, 162, 1187-1228.
14. Zaliapin, I., H. Wong, and A. Gabrielov (2005) Inverse cascade in percolation model: Hierarchical description of time-dependent scaling, *Phys. Rev. E*, 71, 066118.

15. Zaliapin, I., I. Semenova, A. Kashina, V. Rodionov (2005) Multiscale trend analysis of microtubule transport in melanophores, *Biophysical J.*, 88(6): 4008-4016.
16. Zaliapin, I., A. Jin, Z. Liu, K. Aki, and V. Keilis-Borok (2005) Temporal (un)correlations between coda  $Q^{-1}$  and seismicity – Multiscale Trend Analysis, *Pure. Appl. Geophys.*, 162, 827-841.
17. Pisarenko, V. F., A. A. Lyubushin, M. V. Bolgov, T. A. Rukavishnikova, S. Kanyu, M. F. Kanevskii, E. A. Savel'eva, V. V. Dem'yanov, and I. V. Zaliapin (2005) Statistical Methods for River Runoff Prediction, *Water Resources*, 32, 2, 115–126.
18. Zaliapin, I., A. Gabrielov, and V. Keilis-Borok (2004) Multiscale Trend Analysis, *Fractals*, 12 (3), 275-292.
19. Kashina, A., I. Semenova, P. Ivanov, E. Potekhina, I. Zaliapin, and V. Rodionov (2004) Protein kinase A that regulates intracellular transport forms complexes with molecular motors on organelles, *Current Biology*, 14, 1-20.
20. Shebalin, P., V. Keilis-Borok, I. Zaliapin, S. Uyeda, T. Nagao, and N. Tsybin (2004) Advance short-term prediction of the large Tokachi-oki earthquake, September 25, 2003, M=8.1 A case history, *Earth Planets Space*, 56, 715-724.
21. Grasso, J.-R. and I. Zaliapin (2004) Predictability of volcano eruption: lessons from a basaltic effusive volcano, *Geophys. Res. Lett.* 31, No. 5, L05602, doi: 10.1029/2003GL019022.
22. Zaliapin, I., Keilis-Borok, V., and Ghil M. (2003) A Boolean Delay Model of Colliding Cascades. I: Multiple Seismic Regimes, *J. Stat. Phys.*, 111, 3-4, 815-837.
23. Zaliapin, I., Keilis-Borok, V., and Ghil M. (2003) A Boolean Delay Model of Colliding Cascades. II: Prediction of Critical Transitions, *J. Stat. Phys.*, 111, 3-4, 839-861.
24. Keilis-Borok, V., P. Shebalin, and I. Zaliapin (2002) Premonitory Patterns of Seismicity Months Before a Large Earthquake: Five Case Histories in Southern California. *Proc. Nat. Ac. Sci.*, 99, 16562-16567.
25. Zaliapin, I., Z. Liu, G. Zöller, V. Keilis-Borok, and D. Turcotte (2002) On increase of earthquake correlation length prior to large earthquakes in California. *Comp. Seismol.*, 33, 141-161.
26. Zaliapin, I., Keilis-Borok, V., and Axen G. (2002) Premonitory Spreading of Seismicity Over the Fault's Network in S. California: precursor *Accord*, *J. Geophys. Res.*, 107, 2221.
27. Peresan, A., Rotwain, I., Zaliapin I., and Panza. G. F. (2002) Stability of intermediate-term earthquake predictions with respect to random errors in magnitude: the case of Central Italy, *Phys. Earth Planet. Int.*, 130, 117-127.
28. Gabrielov, A. M., Keilis-Borok, V. I., Zaliapin I. V., and Newman W. I. (2000) Critical transitions in colliding cascades. *Phys. Rev. E*, 62, 237-249.
29. Gabrielov, A. M., Zaliapin I. V., Keilis-Borok, V. I., and Newman W. I. (2000) Colliding Cascades as a Model for Earthquake Prediction. *Geophys. J. Int.*, 143, 427-437.
30. Shebalin P., I. Zaliapin, and V. Keilis-Borok (2000) Premonitory raise of the earthquakes correlation range: Lesser Antilles, *Phys. Earth Planet. Int.*, 122: 3-4, 241-249.
31. Pisarenko, V. F., Zaliapin, I. V., Kuznetsov, I. V., Lyubushin, A. A., Kushnir A. F., and Rukavishnikova, T. A. (2000) Applied analysis of point processes and fields. Statistical analysis of seismic migration. *Comp. Seismol.* 31. (In Russian).
32. Zaliapin, I. V. (1999) Statistical analysis of point fields and its application to the problem of detecting seismic migration. *Ph.D. thesis*. International Institute of Earthquake Prediction Theory and Mathematical Geophysics, Russian Ac. Sci., Moscow. (In Russian).
33. Zaliapin, I. V., and Pisarenko, V. F. (1999) On some properties of the estimation of the coefficient of variation of a point process' interoccurrence times. *Proc. of Chelyabinsk Sci. Center* 3, 6-10. (In Russian).

34. Zaliapin, I. V., Kuznetsov I. V., and Pisarenko, V. F. (1998) Estimation of voting results under existence of interrelations of respondents' opinions. *Proc. of Chelyabinsk Sci. Center* 1, 99-108. (In Russian).

### C. Abstracts

1. Zaliapin, I., Y. Sinai, A. Gabrielov, V. Keilis-Borok (2009) Phase Transitions in Cluster Dynamics – New Type of a Critical Phenomenon, *EOS Trans. AGU*, 90 (22), Jt. Assem. Suppl., Abstract NG33B-03.
2. A. Gabrielov, Zaliapin, I., V. Keilis-Borok (2009) Extreme Events and Their Predictability in a Branching Diffusion Model, *EOS Trans. AGU*, 90 (22), Jt. Assem. Suppl., Abstract NG34A-07.
3. Keilis-Borok, V., A. Soloviev, G. Molchan, A. Gabrielov, I. Zaliapin (2009) Predictive Understanding of Disasters: Universality of Precursory Phenomena, *EOS Trans. AGU*, 90 (22), Jt. Assem. Suppl., Abstract NG34A-01.
4. Zaliapin, I. and M. Ghil (2009) A delay differential model of ENSO variability: Extreme values and stability analysis, 2009 *EGU General Assembly*, April 19-24, Vienna, Austria, Session: CL55/NP8.4 “Chaotic and Stochastic Climate Dynamics”, Abstract EGU2009-6597.
5. Zaliapin, I., E. Foufoula-Georgiou, and M. Ghil (2009) Environmental transport on self-similar networks: A dynamical approach, 2009 *EGU General Assembly*, April 19-24, Vienna, Austria, Session: GM1.3/NP3.10 “Stochastic Transport and Emergent Scaling on the Earth's Surface”, Abstract EGU2009-6559.
6. Kreemer, C., Torres, R., Zaliapin, I., Pancha, A., and Anderson, J.G. (2009) Statistics and Correlations of Seismic and Tectonic Moment Rate in California and the Great Basin. 2009 *Annual Meeting of Seismological Society of America (SSA)*, April 8-10, Monterey, CA.
7. Zaliapin, I., E. Foufoula-Georgiou, and M. Ghil (2008) Environmental transport on self-similar networks: A dynamical approach. *EOS Trans. AGU*, 89(53), Fall Meet. Suppl. Abstract H31G-0973.
8. Torres, R., I. Zaliapin, C. Kreemer, A. Pancha, and J. Anderson (2008) Statistics and correlations of seismic and tectonic moment rate in California and the Great Basin. *EOS Trans. AGU*, 89(53), Fall Meet. Suppl. Abstract NG23A-1128 [moved to NG33B-03].
9. Olsen, S. and I. Zaliapin (2008) Spatio-temporal fluctuations of the earthquake magnitude distribution: Robust estimation and predictive power. *EOS Trans. AGU*, 89(53), Fall Meet. Suppl. Abstract NG23A-1127.
10. Olsen, S. and I. Zaliapin (2008) Time-dependent fluctuations of the earthquake magnitude distribution: Statistical estimation and predictive power. *Proc. of Southern California Earthquake Center (SCEC) 2008 Annual Meeting, Palm Springs, CA, September 6-11, 2008*, Vol. XVIII, p. 111.
11. Kreemer, C., R. Torres, I. Zaliapin, A. Pancha, and J. Anderson (2008) Detailed seismic and tectonic moment rate distribution in California and Great Basin. *Proc. of Southern California Earthquake Center (SCEC) 2008 Annual Meeting, Palm Springs, CA, September 6-11, 2008*, Vol. XVIII, p. 122.
12. Zaliapin, I. and M. Ghil (2008) A delay differential model of ENSO variability: Extreme values and stability analysis. *Proceedings of the International Symposium “Topical Problems of Nonlinear Wave Physics 2008”, Section “Global and Synoptic Nonlinear Processes in the Atmosphere”, Nizhny Novgorod, Russia, July 20-26, 2008*, Abstract 3-52, pp.100-101.
13. Zaliapin, I., A. Gabrielov, V. Keilis-Borok, and H. Wong (2008) Aftershock identification and clustering analysis of seismicity (INVITED). *Seism. Res. Lett.*, 79(2): 335. Annual Meeting of Seismological Society of America, Santa Fe, NM, April 16-19, 2008.

14. Ghil, M., M. Chekroun, E. Simonnet, and I. Zaliapin (2008) Robust climate projections and stochastic structural stability of dynamical systems. Joint Mathematics Meeting of AMS, San Diego, CA, January 6-9, Abstract 1035-37-1713.
15. Zaliapin, I., M. Ghil, and S. Thompson (2007) A delay differential model of ENSO variability: parametric instability and the distribution of extremes, *EOS Trans. AGU*, 88(52), Fall Meet. Suppl. Abstract NG32A-02.
16. Gabrielov, A., V. Keilis-Borok, and I. Zaliapin (2007) Predictability of extreme events in spatially distributed driven hierarchical systems, *EOS Trans. AGU*, 88(52), Fall Meet. Suppl. Abstract NG34A-03.
17. Keilis-Borok, V., I. Zaliapin, and A. Gabrielov (2007) Aftershock identification problem via the nearest-neighbor analysis for marked point processes, *EOS Trans. AGU*, 88(52), Fall Meet. Suppl. Abstract NG31A-04.
18. Zaliapin, I., M. Ghil, and S. Thompson (2007) A delay differential model of ENSO variability: Instabilities and the distribution of extremes. *Proc. Climate Change Prediction Program Meeting, Indianapolis, September 17-19, 2007*.
19. Zaliapin, I., S. Kumar, Y. Kagan, and F. Schoenberg (2007) Statistical modeling of seismic moment release in San Andreas fault system, *Southern California Earthquake Center (SCEC) 2007 Annual Meeting, September 9-12, Palm Springs, California*.
20. Ghil, M. and I. Zaliapin (2007) Extreme events: Some theoretical and practical considerations, *Eos Trans. AGU*, 88(23), Jt. Assem. Suppl., Abstract U32B-01 (INVITED)
21. Zaliapin, I. and M. Ghil (2007) A differential delay model of ENSO variability: quantitative predictability and structural instability, *European Geosciences Union, General Assembly, Vienna, Austria, April 15-20*, EGU2007-A-10437, NH8.01/NP4.04-1MO10-001.
22. Schoenberg, F., S. Kumar, I. Zaliapin, and Y. Kagan (2006) Statistical Modeling of Seismic Moment Release. *EOS Trans. AGU*, 87(52), Fall Meet. Suppl. Abstract S13A-0212.
23. Keilis-Borok, V., A. Soloviev, A. Gabrielov, and I. Zaliapin (2006) Universal Pre-Disaster Transformation of Frequency-Magnitude Relation. *EOS Trans. AGU*, 87(52), Fall Meet. Suppl. Abstract NG41A-05.
24. Zaliapin, I., V. Keilis-Borok, and A. Gabrielov (2006) Deviations from Scale-Invariance in Extreme Event Phenomena: A Theoretical Analysis. *EOS Trans. AGU*, 87(52), Fall Meet. Suppl. Abstract NG41A-07.
25. Zaliapin, I., S. Kumar, Y. Kagan, and F. Schoenberg (2006) Statistical Modeling of Seismic Moment Release and Moment Deficiency. *Southern California Earthquake Center (SCEC) 2006 Annual Meeting, September 10-13, Palm Springs, California*.
26. Ghil, M. and I. Zaliapin (2005) Nonlinear Dynamics, Poor Data, and What to Make of Them? *EOS Trans. AGU*, 86(52), Fall Meet. Suppl. Abstract NG22A-01. (INVITED)
27. Shrestha, R. K., I. Zaliapin, B. Dodov, and E. Foufoula-Georgiou (2005) Scaling in Hydrologic Response and a Theoretical Basis for Derivation of Probabilistic Unit Hydrographs. *EOS Trans. AGU*, 86(52), Fall Meet. Suppl. Abstract H33E-1433.
28. Keilis-Borok, V. I., P. Shebalin, A. Gabrielov, and I. Zaliapin (2005) Reverse Tracing of Precursors: Ongoing Experiment in the Month-in-Advance Earthquake Prediction. *EOS Trans. AGU*, 86(52), Fall Meet. Suppl. Abstract NG21A-01. (INVITED)
29. Zaliapin, I., Y. Kagan, and F. Schoenberg (2005) Estimation of Seismic Moment Release with Implications for Regional Hazard Assessment. *EOS Trans. AGU*, 86(52), Fall Meet. Suppl. Abstract S53B-1096.
30. Zaliapin, I., Y. Kagan, and F. Schoenberg (2005) Evaluating the Rate of Seismic Moment Release: A Curse of Heavy Tails. *Southern California Earthquake Center (SCEC) 2005 Annual Meeting, September 11-14, Palm Springs, California*.
31. Zaliapin, I., M. Ghil, V. Keilis-Borok, and A. Gabrielov (2005). Binary decomposition analysis (BDA) of a time series. *General Assembly of the European Geosciences Union, April 2005*. Abstract EGU05-A-05753 (Session NH9.09/NP4.06).

32. Zaliapin, I., H. Wong, and A. Gabrielov (2005) Inverse cascades and hierarchical aggregation in percolation model. *General Assembly of the European Geosciences Union, April 2005*. Abstract EGU05-A-05779 (Session NH9.09/NP4.06).
33. Zaliapin, I., I. Semenova, A. Kashina, and V. Rodionov. Multiscale Trend Analysis of Microtubule-Dependent Pigment Transport in Melanophores. (2004) *Proceedings of 44th Annual Meeting of the American Society for Cell Biology, December 4-8*.
34. Zaliapin, I., G. Molchan. (2004) Tossing the Earth: How to Reliably Test Earthquake Prediction Methods. *Eos. Trans. AGU*, 85(47), Fall Meet. Suppl., Abstract S23A-0302, 2004.
35. Zaliapin, I., E. Fofoula-Georgiou, B. Dodov. (2004) Multiscale Trend Analysis of River Basin Dynamics. *Eos. Trans. AGU*, 85(47), Fall Meet. Suppl., Abstract H33C-0476, 2004.
36. Gabrielov, A., I. Zaliapin, H. Wong (2004) Hierarchical Description of Evolution of an Inverse Cascade in Percolation Model. *Eos. Trans. AGU*, 85(47), Fall Meet. Suppl., Abstract NG31A-0857.
37. Keilis-Borok, V., P. Shebalin, A. Gabrielov, D. Turcotte, I. Zaliapin, M. Ghil (2004) Short-Term Earthquake Prediction Based on the Reverse Tracing of Lithosphere Dynamics. *Eos. Trans. AGU*, 85(47), Fall Meet. Suppl., Abstract NG22A-02 (INVITED)
38. Zaliapin, I., A. Gabrielov, and V. Keilis-Borok. Multiscale Trend Analysis: A new tool for studying complex time series. 25-th IUGG Conference on Mathematical Geophysics, June 16-18, 2004, Columbia U, New York, NY, USA.
39. Zaliapin, I. Testing the earthquake prediction quality: statistical estimation vs. hypothesis testing approaches. SCEC/UGSG/CGS Workshop "Science of Earthquake Prediction", February 20, 2004, SCEC/USC. (INVITED)
40. Zaliapin, I., Z. Liu, K. Aki, A. Jin, V. Keilis-Borok. Multiscale Trend Analysis of Temporal (Un)Correlations Between Coda Q and Seismicity in California. *Eos. Trans. AGU*, 84(46), Fall Meet. Suppl., Abstract NG12C-07, 2003.
41. Keilis-Borok, V., P. Shebalin, A. Gabrielov, I. Zaliapin, S. Uyeda, T. Nagao. Short-term premonitory rise of earthquake correlation range. *Eos. Trans. AGU*, 84(46), Fall Meet. Suppl., Abstract NG41C-0068, 2003.
42. Shebalin, P., V. Keilis-Borok, I. Zaliapin, S. Uyeda, T. Nagao, N. Tsybin. Short-term premonitory rise of earthquake correlation range. *Hagiwara Symposium, IUGG XXIII General Assembly*, June 30 – July 11, 2003, Sapporo, Japan.
43. Keilis-Borok, V., Shebalin, P., S. Uyeda, T. Nagao, I. Zaliapin, On the short-term earthquake prediction based on evolution of seismicity: theory; scaling; application to 27 large earthquakes in Japan and California. *Hagiwara Symposium, IUGG XXIII General Assembly*, June 30 – July 11, 2003, Sapporo, Japan.
44. Zaliapin, I., Keilis-Borok, V., Shebalin, P., Turcotte, D., Liu, Z., Zöller G. Premonitory long-range earthquake correlations. *EGS-AGU-EUG Joint Assembly*, April 7-11, 2003, Nice, France.
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