

## CURRICULUM VITAE

### Education

- 1999      PhD (Mathematics and Physics)  
            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

Aggregation (coagulation) processes; self-similar networks; network transport; multiscale methods of time series analysis; random sums of heavy-tailed variables; delay dynamical systems.

*Applications:* Statistical seismology, seismic clustering, earthquake forecasting and hazard assessment, models of defect development; Environmental transport on river networks and hillslopes; climate stability, El-Niño modeling; stochastic dynamics of intracellular protein motors; financial stochastic modeling.

### Professional experience

- 2009 – present    Associate Professor, Dept. of Mathematics and Statistics,  
                          University of Nevada, Reno
- 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

### Service

- 2011 – present    Member, Committee on Prob. and Stat. in Physical Sci.,  
                          Bernoulli Society for Mathematical Statistics and Probability
- 2011 – present    Program Committee Member, Southern California Earthquake Center
- 2009 – present    Editor, *Nonlinear Processes in Geophysics* (EGU/AGU)
- 2009 – present    Associate Editor, *Journal of Environmental Statistics* (UCLA)
- 2009 – present    Secretary, Natural Hazards Focus Group, Am. Geophys. Union (AGU)

### Publications

40 papers in peer-refereed journals, 80 published abstracts (see the complete list below).

### Teaching (\*=developed)

	(F=Fall, S=Spring)
<i>Probability and Statistics</i> (MATH/STAT 352)	F/S11, F/S10, F/S09, S08, F/S07
* <i>Statistics: Discrete methods</i> (STAT 453/653)	F11, F09, F07
<i>Statistics: Continuous methods</i> (STAT 452/652)	S11, F08
<i>Multivariate Data Analysis</i> (STAT 755)	S09
* <i>Time Series Analysis</i> (STAT 758)	S10, F08, F06
* <i>Topics in Probability</i> (MATH 792)	S08
<i>Calculus for Business</i> (MATH 176)	S07
* <i>Paradoxes of Random Events</i> (UCLA STATS 19)	F05
<i>Applied Statistics</i> (UCLA STATS 110A)	S05
* <i>Paradoxes in Prob. and Statistics</i> (UCLA STATS 189)	S05
* <i>Intro to Stat. for Phys. Sci. and Engineering</i> (UCLA STATS 14)	F04
<i>Geo-complexity and earthquake prediction</i> (UCLA ESS 298)	S02
* <i>Statistical Methods in Geophysical Sciences</i>	F00

### Student advising

- Alejandro Tejedor (PostDoc)    2011 – present
- Maggie Michalowski            2011 – present
- Andrew Hicks                    2010 – 11

Jennifer Bautista (undergrad)	2009 –10
Zachary Rees	2009 –10
Michael Weinzweig	2009 –10
Sayaka Olsen	2007– 09
Tyson Reed	2008
Renee Torres	2007 – 08
Ellen Webb (undergrad)	2007 – 08
Brehnen Wong	2007 – 08
Suresh Kumar	2006 – 07
Henry Lam Wong (PostDoc)	2004 – 05

### Honors

UNR Westfall Scholar Mentor 2010

### Academic services

Curriculum committee, College of Sci., UNR, 2011 – present  
 Curriculum committee, Dept. Math. & Stat., UNR, 2006-08 (member), 2008 – (chair)  
 Colloquium committee, Dept. Math. & Stat., UNR, 2008 – (member)  
 Colloquia committee, IGPP/UCLA, Fall 2005 (member), Spring 2006 (chair)

### Conference organizing

*“Predicting Extreme Events in Natural and Socioeconomic Systems: State-of-the-Art and Emerging Possibilities”* (U21A)  
 Fall AGU Meeting, San Francisco, CA, December 5-9, 2011

*“Complex Networks in Geosciences”* (NG02)  
 Fall AGU Meeting, San Francisco, CA, December 5-9, 2011

*ENHANS International Workshop on Extreme Natural Hazards and Disaster Risk in Africa* (Intl. program committee)  
 Hatfield, Pretoria, South Africa, 17-20 January, 2011

*“Complex Networks in Geosciences”* (NG03)  
 Fall AGU Meeting, San Francisco, CA, December 13-17, 2010

*“Extreme Natural Events: Modeling, Prediction and Mitigation”* (U16 & NH20)  
 Fall AGU Meeting, San Francisco, CA, December 13-17, 2010

*“Natural Hazards and Disaster Risk in Latin America and the Caribbean”* (U09)  
 AGU Joint Assembly, “The Meetings of the Americas”  
 August 8-13, 2010, Foz do Iguassu, Brazil

*“Complex Networks in Geosciences”* (NG10)  
 Fall AGU Meeting, San Francisco, CA, December 14-18, 2009

*“Extreme Natural Hazards: Risk Assessment and Forecasting”* (NH)  
 Fall AGU Meeting, San Francisco, CA, December 14-18, 2009

*“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.

### Review services

**Books:** Springer-Geosciences, Chapman & Hall/CRC-Statistics;

**Journals:** *Science*, *Physical Review Letters (PRL)*, *Physical Review E (PRE)*, *Geophysical Research Letters (GRL)*, *Annals of Applied Statistics (AOAS)*, *Journal of Applied Statistics (JAS)*, *Nonlinear Processes in Geophysics (NPG)*, *Journal of Geophysical Research (JGR)*, *Pure and Applied Geophysics (PAGEOPH)*, *Geophysical Journal International (GJI)*, *Bulletin of Seismological Society of America (BSSA)*, *Tectonophysics*, *Climate Dynamics*, *Chaos*, *Earth and Planetary Science Letters (EPSL)*, *Communications in Statistics – Simulation and Computation*, *Communications in Nonlinear Science and Numerical Simulations*, *Information Sciences (INS)*, *Earth, Planets, and Space (EPS)*;

**Funding agencies:** NSF panel on Mathematical Geosciences; Canada Foundation for Innovation (CFI); Czech Science Foundation (CSF).

**Professional membership**

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

**Research grants**

- 2011-2014 *Collaborative Research: Robust Climate Projections, Stochastic Models and GCM-EaSM Optimization*  
NSF DMS-1049092, PI (\$60,429)
- 2010-2011 *Correlation between seismic clustering properties and regional physical conditions*  
Southern California Earthquake Center (SCEC), PI (\$12,000)
- 2009-2012 *CMG Collaborative Research: Envirodynamics on River Networks*  
NSF EAR-0934871, PI (\$224,000)
- 2008-2011 *Time-dependent modeling of seismic moment release in San Andreas Fault -- Great Basin System,*  
Southern California Earthquake Center (SCEC), PI (\$60,000)
- 2009-2011 *Investigating temporal changes in the earthquake magnitude distribution,*  
Southern California Earthquake Center (SCEC), PI (\$12,000)
- 2009-2011 *Correlation between seismic clustering properties and regional physical conditions,*  
Southern California Earthquake Center (SCEC), PI (\$15,000)
- 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)

## Publications

### A. Preprints

1. Ghil, M. and I. Zaliapin (2010) El Niño/Southern Oscillation: Impacts, Modeling and Forecasts, In *Encyclopedia of Natural Hazards*, P. Bobrowsky (Ed.), Springer.
2. Gabrielov, A., V. Keilis-Borok, S. Olsen and I. Zaliapin (2010) Predictability of extreme events in a branching diffusion model. *Phys. Rev E.*, sub judice.

### B. Peer-reviewed papers

1. Zaliapin, I. and Y. Kovchegov (2011) Tokunaga and Horton self-similarity for level-set trees of Markov chains. *Chaos, Solitons and Fractals*. Accepted. [arXiv:1101.2429v1](https://arxiv.org/abs/1101.2429v1)
2. Ghil *et al.* (2011) Extreme events: Dynamics, statistics and prediction, *Nonlin. Processes Geophys.*, 18, 295–350.
3. Zaliapin, I. and Y. Ben-Zion (2011) Asymmetric distribution of early aftershocks on large faults in California. *Geophys. J. Intl.*, 185, 1288–1304.
4. Zaliapin I. and M. Ghil (2011) Reply to Roe and Baker’s comment on “Another look at climate sensitivity” by Zaliapin and Ghil (2010) *Nonlin. Processes Geophys.*, 18, 129–131.
5. Ikeda, K., O. Zhapparova, I. Brodsky, I. Semenova, I. Zaliapin, and V. Rodionov (2011) CK1 activates minus-end directed transport of membrane organelles along microtubules. *Molecular Biology of the Cell*, 22, 1321–1329.
6. Zaliapin I. and M. Ghil (2010) Another look at climate sensitivity. *Nonlin. Processes Geophys.*, 17, 113–122.
7. Zaliapin, I. and M. Ghil (2010) A delay differential model of ENSO variability, Part 2: Phase locking, multiple solutions, and dynamics of extrema. *Nonlin. Processes Geophys.*, 17, 123–135.
8. Zaliapin, I., E. Foufoula-Georgiou, and M. Ghil (2010) Transport on river networks: A dynamic-tree approach. *J. Geophys. Res.*, 115, F00A15, doi:10.1029/2009JF001281 [arXiv:0902.1554v1](https://arxiv.org/abs/0902.1554v1)
9. Lomakin, A. J., I. Semenova, I. Zaliapin, P. Kraikivski, E. Nadezhdina, B. M. Slepchenko, A. Akhmanova, and V. Rodionov (2009) Clip-170-dependent capture of membrane organelles by microtubules initiates minus-end directed transport, *Developmental Cell*, 17, 1–11, doi:10.1016/j.devcel.2009.07.010.
10. 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
11. 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
12. Ghil, M., I. Zaliapin, and S. Thompson (2008) A delay differential model of ENSO variability: Parametric instability and the distribution of extremes. *Nonlin. Processes Geophys.*, 15, 417–433.
13. 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.
14. 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.
15. 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.

16. 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.
17. 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)
18. Cvitanic, J., B. Rozovskii, and I. Zaliapin (2006) Numerical estimation of volatility values from discretely observed diffusion data, *Comp. Finance*, 9(4), 1-36.
19. Zaliapin, I., H. Wong, and A. Gabrielov (2006) Hierarchical Aggregation in Percolation Model, *Tectonophysics*, 413, 93-107.
20. 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.
21. 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.
22. Zaliapin, I., Y. Kagan, and F. Schoenberg (2005) Approximating the distribution of Pareto sums, *Pure. Appl. Geophys.*, 162, 1187-1228.
23. Zaliapin, I., H. Wong, and A. Gabrielov (2005) Inverse cascade in percolation model: Hierarchical description of time-dependent scaling, *Phys. Rev. E*, 71, 066118.
24. Zaliapin, I., I. Semenova, A. Kashina, V. Rodionov (2005) Multiscale trend analysis of microtubule transport in melanophores, *Biophysical J.*, 88(6): 4008-4016.
25. 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.
26. 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.
27. Zaliapin, I., A. Gabrielov, and V. Keilis-Borok (2004) Multiscale Trend Analysis, *Fractals*, 12 (3), 275-292.
28. 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.
29. 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.
30. 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.
31. 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.
32. 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.
33. 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.
34. 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.

35. 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.
36. 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.
37. 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.
38. 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.
39. 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.
40. 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).

### C. Other papers

41. 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).
42. 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).
43. 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).

### D. Abstracts/Conference proceedings

1. Zaliapin, I., E. Fofoula-Georgiou, M. Ghil, and Y. Kovchegov (2011) Hierarchical network approach to modeling complex geophysical systems. Abstract #3477, XXV General Assembly of International Union of Geodesy and Geophysics, Melbourne, Australia, 28 June – 7 July, 2011. (Invited)
2. Ben-Zion, Y. and I. Zaliapin (2011) Observational tests of dynamic bimaterial effects on natural faults with along-strike symmetry properties of aftershocks. EGU General Assembly 2011, Vienna, Austria, 3-8 April, 2011. Geophysical Research Abstracts, Vol. 13, EGU2011-2797.
3. Fofoula, E., I. Zaliapin, S. Zanardo, M. Ghil, M. Power, and W. Dietrich (2011) Dynamic River Networks (DRNs): a new conceptual framework for modeling spatially explicit and temporally dynamic fluxes connecting channels and landscapes. EGU General Assembly 2011, Vienna, Austria, 3-8 April, 2011. Geophysical Research Abstracts, Vol. 13, EGU2011-5364. (Invited)
4. Zaliapin, I. and Y. Ben-Zion (2011) Correlations between clustering and productivity properties of seismicity in California and heat flow. Annual Meeting of Seismological Society of America, Memphis TN, 13-15 April, 2011. *Seismol. Res. Lett.*, 82, 361.
5. Zaliapin, I. (2011) Hierarchical network approach to modeling natural complexities. Presented at *ENHANS International Workshop on Extreme Natural Hazards and Disaster Risk in Africa*, Pretoria, South Africa, 17-20 January. (Invited)
6. Hicks, A., I. Zaliapin, Y. Ben-Zion (2010) Worldwide seismic clustering and correlations with regional physical properties. Abstract NG44A-04 presented at 2010 Fall Meeting, AGU, San Francisco, California, 13-17 December.
7. Passalacqua, P., I. Zaliapin, E. Fofoula-Georgiou, M. Ghil, B. Dietrich (2010) A Dynamic Tree Approach to Environmental Transport on Hillslopes. Abstract NG43B-1418 presented at 2010 Fall Meeting, AGU, San Francisco, California, 13-17 December.

8. Zaliapin, I., E. Foufoula-Georgiou, M. Ghil (2010) Static and dynamic Tokunaga stream networks: Statistical properties. Abstract H51E-0941 presented at 2010 Fall Meeting, AGU, San Francisco, California, 13-17 December.
9. Kovchegov, Y. and I. Zaliapin (2010) Tokunaga self-similarity for symmetric homogeneous Markov chains. Abstract NG43B-1414 presented at 2010 Fall Meeting, AGU, San Francisco, California, 13-17 December.
10. Zaliapin, I. and Y. Ben-Zion (2010) Seismic Clustering and Regional Physical Properties: A Statistical Analysis, *Proc. of Southern California Earthquake Center (SCEC) 2010 Annual Meeting, Palm Springs, CA, September 11-15, 2010*, Vol. XX, p. 299.
11. Zaliapin, I. and Y. Ben-Zion (2010) Seismic clustering and regional physical properties: A statistical analysis. Poster presented at 28th IUGG Conference on Mathematical Geophysics, June 7-11, 2010, Pisa, Italy
12. Zaliapin, I., E. Foufoula-Georgiou, and M. Ghil (2010) Envirodynamics on river networks: A minimal complexity framework for transport studies. EGU General Assembly 2010, Vienna, Austria, 2-7 May, 2010. Geophysical Research Abstracts, Vol. 12, EGU2010-7140 (Invited).
13. Chekroun, M., I. Zaliapin, and M. Ghil (2010) Pullback attractors in nonautonomous dynamical systems with delay: Applications to an ENSO model with seasonal forcing. EGU General Assembly 2010, Vienna, Austria, 2-7 May, 2010. Geophysical Research Abstracts, Vol. 12, EGU2010-7050-1.
14. Zaliapin, I., E. Webb, E. Foufoula-Georgiou, and M. Ghil (2010) Tokunaga self-similar trees: A characteristic property of aggregation processes. EGU General Assembly 2010, Vienna, Austria, 2-7 May, 2010. Geophysical Research Abstracts, Vol. 12, EGU2010-7156.
15. Singh, A., Zaliapin, I., and E. Foufoula-Georgiou (2010) Tree representation of time series: A case study of self-similarity and dynamics of channel bed morphology. EGU General Assembly 2010, Vienna, Austria, 2-7 May, 2010. Geophysical Research Abstracts, Vol. 12, EGU2010-7171.
16. Zaliapin, I. and Y. Ben-Zion (2010) Asymmetric properties of early aftershocks on faults in California. 2010 Annual Meeting of Seismological Society of America, Portland OR, 21-23 April, 2010. *Seismol. Res. Lett.*, 81(2), 366.
17. Zaliapin, I. and J. Bautista (2010) Regional seismicity as a flow of clusters: A case study in California. 2010 Annual Meeting of Seismological Society of America, Portland OR, 21-23 April, 2010. *Seismol. Res. Lett.*, 81(2), 361.
18. Chekroun, M. D., I. Zaliapin, and M. Ghil (2009) A delay differential model for El-Nino/Southern Oscillation (ENSO): Pullback attractors, phase locking, and multiple solutions. *EOS Trans. AGU*, 90(52), Fall Meet. Suppl. Abstract NG13A-1088.
19. Zaliapin, I., M. Ghil, and E. Foufoula-Georgiou (2009) Envirodynamics: Dynamical trees and BDE modeling of river transport. *EOS Trans. AGU*, 90(52), Fall Meet. Suppl. Abstract NG33C-06.
20. Webb, E. and I. Zaliapin (2009) Tokunaga trees: Why do they emerge everywhere? *EOS Trans. AGU*, 90(52), Fall Meet. Suppl. Abstract NG41A-1178.
21. Zaliapin, I., C. Kreemer, J. Anderson, and A. Panha (2009) Modeling seismic moment release: Toward resolving seismic moment deficit paradox. *Proc. of Southern California Earthquake Center (SCEC) 2009 Annual Meeting, Palm Springs, CA, September 12-16, 2009*, Vol. XIX, p. 272.
22. Zaliapin, I. and Y. Ben-Zion (2009) Correlations between seismic clustering and properties of the crust. *Proc. of Southern California Earthquake Center (SCEC) 2009 Annual Meeting, Palm Springs, CA, September 12-16, 2009*, Vol. XIX, p. 233.
23. Olsen, S. and I. Zaliapin (2009) Assessing premonitory power of the variations in the earthquake magnitude distribution. *Proc. of Southern California Earthquake Center (SCEC) 2009 Annual Meeting, Palm Springs, CA, September 12-16, 2009*, Vol. XIX, p. 232.

24. 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.
25. Gabrielov, A., I. Zaliapin and 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.
26. Keilis-Borok, V., A. Soloviev, G. Molchan, A. Gabrielov, and I. Zaliapin (2009) Predictive Understanding of Disasters: Universality of Precursory Phenomena, *EOS Trans. AGU*, 90 (22), Jt. Assem. Suppl., Abstract NG34A-01.
27. 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.
28. 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.
29. 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.
30. 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.
31. 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].
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