

Curriculum Vitae

1) **Date of Preparation of CV:**

Sep 1, 2009

2) **Personal Data:**

Name: Gustavo A. Stolovitzky
Birthdate: May 27, 1961
Birthplace: Buenos Aires, Argentina
Citizenship: Argentina

3) **Education:**

1987; B.A., M. Sc. Physics (with Honors); University of Buenos Aires, Argentina.
1994; M.Phil; Mechanical Engineering; Yale University, New Haven.
1994; Ph.D.; Mechanical Engineering; Yale University, New Haven.
Thesis: "The statistical order of small scales in turbulence".
Advisor: Prof. K.R.Sreenivasan.

4) **Postdoctoral Training:**

1994-1997; Postdoctoral Fellow; Research in Biophysics and Genomics Research; The Rockefeller University.
1997-1998; Postdoctoral Research Associate; Biophysics and Computational Biology; NEC Research Institute.

5) **Professional organizations and societies**

Member of the American Physical Society.
Member of the New York Academy of Sciences.
Member of the American Association for the Advancement of Science.

6) **Academic appointments: (List in chronological order)**

1996 Joliot Invited Professor at Laboratoire de Mecanique de Fluides, ESPCI, Paris, France.
1997-1998 Guest Investigator at The Rockefeller University.
May 1997 Visiting Scholar at the Physics Department of The Chinese University of Hong Kong.
2007-present Adjunct Associate Professor of Biomedical Informatics, Columbia University.
2008 Member, Simons Center for Systems Biology, Institute for Advanced Study, Princeton

7) **Honors:**

1995. The Henry Prentiss Becton Prize, awarded by The Faculty of Engineering at Yale University for Excellence in Engineering and Applied Science.
2002. Gene expression algorithm Genes@Work project chosen as an "IBM Research Technology Accomplishment".
2004. Elected Permanent Member of DIMACS (Center for Discrete Math and Computer Science).
2006. Elected Fellow of the American Physical Society.
2007. Elected Fellow of the New York Academy of Sciences.
2007. Tumor-suppressor p53 pathway modeling project chosen an "IBM Research Science Accomplishment".
2008. DREAM project chosen as an "IBM Research Science Accomplishment".

8) Fellowship and grant support:

1988-1990. Initiation Fellowship for Doctoral Studies, CONICET (equivalent to NSF), Argentina.
1990-1994. Yale University Graduate Fellowship.
2005-2009 DREAM project funding through the Columbia University MAGNET Center, one of the National Centers for Bio-Computing (NIH Roadmap)
2009-2012 NHGRI Revolutionary Genome Sequencing Technologies - 1000 dollar genome (R01).

9) Institutional and University Committees:

2005-present. Member of the NY Acad of Science System Biology Discussion Group
Steering Committee
2005-2007. Member of the Advisory Board of Arizona State University's Biomedical Informatics Department.
2006. Member of an International Selection Panel for a Professor of Biophysics in the University of Buenos Aires, Argentina.
2007 Reviewer for the Modeling and Analysis of Biological Systems NIH study section.
2007 Scientific Advisory Board for the NCI Integrative Cancer Biology Program at MIT.
2007 Member of the Selection Panel for NY Academy of Sciences Blavatnik Awards for Young Investigators.
2008 Member of the Selection Panel for NY Academy of Sciences Blavatnik Awards for Young Investigators.

10) Teaching experience and responsibilities:

Member of the Ph.D. thesis committee: Agatha Liu. Graduated in Computer Science, University of Washington, 2002.
Mentor for IBM Research Ph.D. Fellowship 2000-2002: Ronald Jansen, Graduated in Computational Genomics, Yale University, 2002.
Member of the Ph.D. thesis committee: Nigam Shah. Graduated in Integrative Biosciences, Pennsylvania State University, 2005.
Mentor for IBM Research Ph.D. Fellowship 2006-2007: Adam Margolin, Graduate Student in Biomedical Informatics Department, Columbia University.
Member of the Ph.D. thesis committee: Adam Margolin, Biomedical Informatics Department, Columbia University, 2006.
Member of the Ph.D. thesis committee: Kai Wang, Biomedical Informatics Department, Columbia University, 2007.
Mentor for IBM Research Ph.D. Fellowship 2007-: Diego Fernandez Slezak, Graduate Student in Computer Science Department, University of Buenos Aires.
Mentor Ph.D. Student-: David Foster, Graduate Student in the Institute for Biocomplexity and Bioinformatics, University of Calgary, Alberta, Canada.
Member of the Ph.D. thesis committee: Daniel Marbach, EPFL, Lausanne, Switzerland, 2009.
Co-director Ph.D thesis-: Diego Fernandez Slezak, Graduate Student in Computer Science Department, University of Buenos Aires, 2008 - present

11) Other professional activities:

a) Editorial
2003 Program Committee: IEEE Computer Society Bioinformatics Conference.
2004 Program Committee: IEEE Computer Society Bioinformatics Conference.
2006 Program Committee, Genomics Signal Processing and Statistics (GENSIPS).
2006 14th Annual Intl. Conference on Intelligent Systems for Molecular Biology.

2007 Co-editor, special issue on Genomics and Proteomics, IEEE signal processing journal.
 2006-present Academic Editor/Editorial Board Member, PLoS (Public Library of Science) One.
 2008-present Editor, OMICS.

b) Conference Organization or Co-organization

10/25-27/01 DIMACS workshop on Analysis of Gene Expression Array data, Piscataway, NJ.
 03/15-16/-2. Co-Organize conference Blue Gene, Edinburgh. 2002,
 07/31-08/1/03. Third Blue Gene Conference, Brookhaven National Lab, July 31-Aug 1 2003.
 03/14/05. Reverse Engineering workshop. NYAS, NY
 05/19/05. Modeling and simulations workshop. NYAS, NY
 03/9-10/06 Organization of the DREAM Steering Committee Workshop, NY Acad of Sciences, NY
 09/07-08/06 First DREAM conference, Wave Hill, NY
 12/03-04/07 DREAM2 conference, NYAS, NY
 10/29-11-2/08 RECOMB Systems Biology, Regulatory Genomics and DREAM3, Broad Institute, Cambridge, MA.

12) Seminars, Schools, Conference Presentations, University Courses (2001-present)

2001

May 11: Seminar, Mayo Clinic, Rochester, Minn.
 June 1: Jornadas de Bioinformatica Workshop, Malaga, Spain.
 Jun 6: Seminar, University Polytechnic of Barcelona, Barcelona, Spain.
 June 7: Eurobiochips Conference, Munich, Germany.
 June 22: DIMACS wrkshp on Integration of Diverse Biological Data, Piscataway, NJ.
 Sep 25: Microarray Technologies Summit Conference, chair session and speaker, Princeton, NJ.
 Oct 10: Microarray Technology Roundtable, (Multiple Myeloma Research Found), Boston, MA.
 Oct 25: DIMACS Workshop on Analysis of Gene Expression Data, Piscataway, NJ.

2002

Apr 11: DNA Arrays 2002 Workshop, CNIO, Madrid, Spain.
 Apr 18: Seminar, Physics Department, Queens University, Belfast, Ireland.
 Apr 22: Seminar, Molecular Biology Department, Princeton University, Princeton, NJ.
 May 9-10: Univ of GA/IBM Symposium on Structural Genomics and Bioinformatics, Athens, GA.
 May 13: IBM/Mayo workshop, Rochester, MN.
 Aug 2: Seminar, Institute for Cancer Genetics, Columbia University, New York, NY.
 Sep 13: Yale Bioinformatics Symposium, Yale Univ, New Haven CT.
 Oct 23-25: Biomedical Engineering Society Conference, Houston, TX.
 Oct 23-25: Chips to Hits Conference, Philadelphia, PA.
 Nov 22: Seminar, Whitaker Institute, Johns Hopkins Univ, Baltimore, MD

2003

Jan 8: Seminar, Harvard Medical School, Department of Genetics, Boston, MA.
 Jan 9-10: MIT's CSBI kick-off Symposium, Boston, MA.
 Apr 2: Graduate Biotechnology Program Seminar Series at Manhattan College, New York, NY.
 Jun 6-8: Frontiers in Bioinformatics Symposium, Buffalo, NY.
 Jun 12: W.H Feinstone Symposium on microarray technology, Memphis, TN.
 July 4: Seminar, Cross Cancer Institute, Edmonton, Alberta, Canada.

- July 14-15: Bio-Chips Conference, Iselin, NJ.
 Aug 7: Seminar, Institute for Advanced Studies, Princeton, NJ.
 Aug. 11-14: IEEE Computer Society Bioinformatics Conference, Stanford Univ, Palo Alto, CA.
 Aug 13: Seminar, Genentech, San Francisco, CA.
 Sept 10: Seminar, Institute for Systems Biology, Seattle, WA.
 Oct 30-31: DIMACS workshop on datamining techniques in Bioinformatics, Piscataway, NJ.
 Nov 4-5: Workshop on Info processing in the bio organism, Washington DC.
- 2004**
- April 14: Seminar, BioMaps, Rutgers, New Brunswick, NJ.
 Mar 30: Seminar, Dana Farber Cancer Institute, Boston, MA.
 May 25-27: Workshop of Genomics Signal Processing and Statistics (GENSIPS), Baltimore, MD.
 July 1: Seminar, Biomathematics Department, Mount Sinai School of Medicine, New York, NY.
 July 16: Seminar, Biophysics Department, Mount Sinai School of Medicine, New York, NY.
 July 28: Seminar, Translational Genomics Institute, Phoenix, AZ.
 Aug 4: Seminar, Picasso Project, Computer Science Department, Princeton University, NJ.
 Sep 21: MITRE Conference on Computational Biology, Washington, DC.
 Oct 21-24: 7th Conference on Computational Genomics, Reston, VA.
- 2005**
- Mar 3: Oncogenomics 2005, AACR conference, San Diego, CA.
 Mar 19-22: Computational Cell Biology Meeting, Lenox, MA.
 May 9: Seminar, Krasnow Institute, George Mason University, Washington DC
 Jun 6: Seminar, IBM sponsored Systems Biology Conference, Amagi, Japan.
 June 29: Seminar, Skirball Institute, NYU, New York, NY.
 July 14: The Future Of Technology & Life Sciences workshop, Univ of Minnesota, MN.
 Aug 15: Machine Learning for network reconstruction DIMACS workshop, Piscataway, NJ.
 Sep 14: Chips to Hits Conference, Boston, MA.
 Oct 17: The Fourth Canadian Working Conference on Computational Biology, Toronto, Canada.
 Nov 4: Yale Symposium in Bioinformatics, New Haven, CT.
 Nov 4: Panel participant at Yale Computer Science Department meeting, New Haven, CT.
 Dec 7-10: Course at the 1st International Bio-mathematics School, La Cumbre, Cordoba, Argentina.
- 2006**
- April 13: Short Course on Systems Biology at Phillips Research, Briarcliff Manor, NY
 July 31-Aug 4: Short Course on Systems Biology at the Univ. of Buenos Aires, Buenos Aires, Argentina
 Sep 14-Nov 13: 5 classes for the Computational Biology 101 course at Columbia Univ, New York, NY.
 Nov 15: Seminar, University of Chicago, Chicago, IL.
 Jan 19: Panelist in the Inauguration of the Biomed Informatics Dept at ASU, Phoenix, AZ.
 May 16: Speaker 2nd International Symposium on Animal Functional Genomics, Lansing, MI.
 Oct 9-11: Invited Speaker at Network conference in Erice, Sicily, Italy.
 Oct 23: Feature presentation at Regulomics Symposium, Boston, NY.
- 2007**
- Mar 29: Institute of Biological Engineering, Anual Meeting, Saint Louis, MO
 Mar 14: Seminar, Dept. of Computer Science (Picasso program), Princeton University, NJ
 June 11: Lecturer in BioMaps Summer School, UMDNJ, Piscataway, NJ.
 July 2-6: Course at the 2nd International Bio-mathematics School, La Falda, Cordoba, Argentina.
 July 16-17: Lecturer at Summer School "Statistical Physics of Gene Regulation", Bremen, Germany.
 Oct 16-17: Seminar, Karolinska Institute, Stockholm, Sweden.
 Nov 13: Invited talk, Mathematical Biology Seminar, NJIT, Newark, NJ.

Nov 27: NF-kappaB oscillations Workshop, Institute for Advanced Study, Princeton, NJ.

Dec 3-4: Invited talks, DREAM2 Conference, NY Academy of Sciences, NY.

13) Publications: (* = senior author)

A. Original, Peer Reviewed Articles

1. J. Talpe, G. Stolovitzky and V. Bekeris, Cryogenic thermometry and level detection with common diodes, *Cryogenics*, 27, 693 (1987).
2. G. Stolovitzky and J. Hernando, A study on the resonant structure of integrable and near-integrable two dimensional systems, *Physical Review A*, 41, 3026 (1990).
3. G. Stolovitzky and J. Hernando, Attractive and repulsive interactions in a two dimensional billiard-like system: The Lennard-Jones stadium, *Physical Review A*, 41, 6716 (1990)
4. G. Stolovitzky and J. Hernando, Intermittency, ergodicity and spectral analysis in classical Hamiltonian dynamics , *Physical Review A*, 43, 2774 (1991).
5. P. Kailasnath, K. R. Sreenivasan and G. Stolovitzky, Probability density of velocity increments in turbulent flows, *Physical Review Letters*, 68, 2766 (1992).
6. G. Stolovitzky, P. Kailasnath, and K. R. Sreenivasan, Kolmogorov's refined similarity hypotheses, *Physical Review Letters*, 69, 1178 (1992).
7. G. Stolovitzky and K. R. Sreenivasan, Scaling of structure functions, *Physical Review E*, 48, R33 (1993).
8. G. Stolovitzky, K. R. Sreenivasan and A. Juneja, Scaling functions and scaling exponents in turbulence, *Physical Review E*, 48, R3217 (1993).
9. G. Stolovitzky and K. R. Sreenivasan, Independent velocity increments and Kolmogorov s refined similarity hypotheses , *Proceedings of the 2nd ONR/NUWC technical conference: Nonlinear dynamics (chaos) and full spectrum processing*, AIP Conference Proceedings 296, (R. Katz, ed), 97 (1993).
10. K. R. Sreenivasan and G. Stolovitzky, Multiplicative models for turbulent energy dissipation, *Acta Mechanica*, Suppl., 4, 113 (1994).
11. G. Stolovitzky and K. R. Sreenivasan, Kolmogorov s refined similarity hypotheses for turbulence and general stochastic processes , *Reviews of Modern Physics*, 66, 229 (1994).
12. Juneja, D. P. Lathrop, K. R. Sreenivasan and G. Stolovitzky, Synthetic turbulence , *Physical Review E*, 49, 5179-5194 (1994).
13. K. R. Sreenivasan and G. Stolovitzky, Turbulent cascades, *Journal of Statistical Physics*, 78, Nos 1/2, 311 (1995).
14. L. Faucheux, G. Stolovitzky and A. Libchaber, Periodic forcing of a Brownian particle, *Physical Review E*, 51, 5239-5250 (1995).
15. G. Stolovitzky, K. R. Sreenivasan, Refined similarity hypotheses for passive scalars mixed by turbulence, *Journal of Fluid Mechanics*, 297, 275-291 (1995).
16. G. Stolovitzky and K. R. Sreenivasan, Intermittency, the second order structure function, and the turbulent energy dissipation rate, *Physical Review E*, 52, 3242-3244, (1995).
17. G. Stolovitzky, T. Kapper and L. Sirovich, A simple model for chaotic advection and scattering, *Chaos*, 5, 671-686 (1995).

18. K. R. Sreenivasan and G. Stolovitzky, Statistical dependence of inertial range properties on the large scale in high-Reynolds-number shear flows, *Physical Review Letters*, 77, 2218-2221, (1996).
19. M. Nelkin and G. Stolovitzky, Limitations of random multipliers in describing turbulent energy dissipation, *Physical Review E*, 54, 5100-5106 (1996).
20. *G. Stolovitzky and G. Cecchi, Efficiency of DNA replication in the Polymerase Chain Reaction , *Proc. Natl. Acad. Sci. USA*, 93, 12947-12952, (1996).
21. D. Brunner, S. Fairhurst, G. Stolovitzky and J. Gibbon, Mnemonics for variability: Remembering food delay, *J. Exp. Psych.: Animal Behavior Processes*, 23 1, 68-83 (1997).
22. G. Stolovitzky, J.L. Aider and J.E. Wesfreid, Conditional statistics and coherent structures in inhomogeneous turbulent mixing, *Physical Review Letters* 23, 78, (1997).
23. G. Stolovitzky, C. Meneveau and K.R. Sreenivasan, Comment on "Isotropic Turbulence: Important differences between True Dissipation Rate and Its One-Dimensional Surrogate", *Physical Review Letters* 80, 3883 (1998).
24. *G. Stolovitzky, Nonisothermal Inertial Brownian motion , *Physics Letters A*, 241, 240-256, (1998).
25. *E.S.C. Ching, C.S. Pang and G. Stolovitzky, Effects of a Large Scale Mean Circulating Flow on Passive Scalar Statistics in a Model of Random Advection, *Physical Review E*, 58, 1948-1954, (1998).
26. M.O.Magnasco and G. Stolovitzky, Feynman s Ratchet and Pawl, *Journal of Statistical Physics* 93, 615-632, (1998).
27. G.V. Shivashankar, G. Stolovitzky and A. Libchaber, Backscattering from a Tethered Bead as a Probe of DNA Flexibility, *Applied Physics Letters*, 73, 291-293, (1998).
28. W. Li, G. Stolovitzky, P. Bernaola-Galvan and J.L. Oliver, Compositional Heterogeneity Within, and Uniformity Between, DNA Sequences of Yeast Chromosomes, *Genome Research*, 8, 916-928, (1998).
29. *G. Stolovitzky and E.S.C. Ching, Characterization of Stationary Distributions Using Conditional Expectations , *Physics Letters A*, 255 11-16, (1999).
30. Floratos, I. Rigoutsos, L. Parida, G. Stolovitzky and Y. Gao, Sequence Homology Detection Through Large Scale Pattern Discovery , in *Proceedings 3rd Annual ACM International Conference on Computational Molecular Biology (RECOMB 99)*, (1999).
31. Califano, G. Stolovitzky and Y. Tu, Analysis of Gene Expression Microarrays for Phenotype Classification , *Proceedings of the 8th Annual Intelligent Systems in Molecular Biology (ISMB) 2000*; 8:75-85 (2000).
32. R. Hart, A.K.Royyuru, G.Stolovitzky and A. Califano, Systematic and Fully Automated Discovery of Patterns in PROSITE Families , *Proceedings 4th Annual ACM International Conference on Computational Molecular Biology (RECOMB 2000)*, (2000). In extended form in: *Journal of Computational Biology*, 7(3-4) : 585-600 (2000).
33. G. Stolovitzky and B.J. Berne, Catalytic Tempering: A Method for Sampling Rough Energy Landscapes by Monte Carlo, *Proc. Natl. Acad. Sci. USA*. 97 (21): 11164-9 (2000).
34. U. Klein, Y. Tu, G. Stolovitzky, M. Mattioli, G. Cattoretti, H. Husson, A. Freedman, G. Inghirami, L. Cro, L. Baldini, A. Neri, A. Califano and R. Dalla Favera, Gene expression

- profiling of B cell chronic lymphocytic leukemia reveals a homogeneous phenotype related to memory B cells, *J Exp Med.* Dec 3;194(11):1625-38 (2001).
35. *Mateos, J. Dopazo, R. Jansen, Y. Tu, M. Gerstein and G. Stolovitzky, Systematic learning of gene functional classes from DNA array expression data by using multilayer perceptrons, *Genome Research* 12, 1703-15 (2002).
 36. Y. Tu, G. Stolovitzky and U. Klein, Quantitative noise analysis for gene expression microarray experiments, *Proc. Natl. Acad. Sci. USA* 99, 14031-6 (2002).
 37. S.L. Pomeroy, P. Tamayo, M. Gaasenbeek, L.M. Sturla, M. Angelo, M.E. McLaughlin, J.Y. Kim, L.C. Goumnerova, P.M. Black, C. Lau, J.C. Allen, D. Zagzag, J.M. Olson, T. Curran, C. Wetmore, J.A. Biegel, T. Poggio, S. Mukherjee, R. Rifkin, A. Califano, G. Stolovitzky, D.N. Louis, J.P. Mesirov, E.S. Lander, T.R. Golub, Prediction of central nervous system embryonal tumour outcome based on gene expression, *Nature*, Jan 24;415(6870):436-42 (2002).
 38. J.J. Rice, G. Stolovitzky, Y. Tu, and P.P. de Tombe, Ising Model of cardiac thin filament activation with nearest neighbor interactions, *Biophys. Journal*, 84(2), 897-909, (2003).
 39. R. Kuppers, U. Klein, I. Scherping, V. Distler, A. Brauninger, G. Cattoretti, Y. Tu, G. Stolovitzky, A. Califano, M.L. Hansmann, R. Dalla Favera, Identification of Hodgkin and Reed-Sternberg cell-specific genes by gene expression profiling. *J Clin Invest.* 111(4): 529-37 (2003).
 40. *G. Stolovitzky, Gene selection in microarray data: the elephant, the blind men and our algorithms. *Current Opinion in Structural Biology*, 13:370-376 (2003).
 41. U. Klein, Y. Tu, G. Stolovitzky, J.L. Keller, J. Haddad Jr., V. Miljkovic, G. Cattoretti, A. Califano, and R. Dalla Favera, Transcriptional analysis of the germinal-center reaction, *Proc. Nat. Acad. Sci. USA*, 100(5):2639-44, (2003).
 42. U. Klein, Y. Tu, G. Stolovitzky, J.L. Keller, J. Haddad Jr., V. Miljkovic, G. Cattoretti, A. Califano, R. Dalla Favera, Gene Expression Dynamics during Germinal Center Transit in B Cells, *Ann. NY Acad. Sci.* 987:166-172 (2003).
 43. K. Basso, U. Klein, H. Niu, G. Stolovitzky, Y. Tu, A. Califano, G. Cattoretti, R. Dalla Favera, Tracking CD40 Signaling during Normal Germinal Center Development by Gene Expression Profiling, *Ann. NY Acad. Sci.* 987:288-290 (2003).
 44. A.H. Liu, X. Zhang, G. Stolovitzky, A. Califano and S.J. Firestein, Motif-based construction of a functional map for mammalian olfactory receptors, *Genomics*, 81(5):443-56 (2003).
 45. D.F. Jelinek, R.C. Tschumper, G. Stolovitzky, S.J. Iturria, Y. Tu, J. Lepre, N. Shah, and N.E. Kay, Identification of a global Gene Expression Signature of B-Chronic-Lymphocytic Leukemia, *Molecular Cancer Research*, 1 (5) :346-61 (2003).
 46. *N. Shah, J. Lepre, Y. Tu, G. Stolovitzky, Can we identify cellular pathways implicated in cancer using gene expression data?, *Proceedings of the 2nd IEEE Computational Systems Bioinformatics Conference*, pp. 94-103, (2003).
 47. K. Basso, U. Klein, H. Niu, G. Stolovitzky, Y. Tu, A. Califano, G. Cattoretti, R. Dalla Favera, Tracking CD40 signaling during normal germinal center development, *Blood* 104(13):4088-96 (2004).
 48. *J. Lepre, J.J. Rice, Y. Tu, and G. Stolovitzky, Genes@Work: an efficient algorithm for pattern discovery and multivariate feature selection in gene expression data, *Bioinformatics* 20(7):1033-44 (2004).

49. *J.J. Rice and G. Stolovitzky, Making the most of it: Pathway reconstruction and integrative simulation using the data at hand, *Biosilico* 2(2):70-7 (2004).
50. *J. Hussan, K. Krishnamoorthy and G. Stolovitzky, Identifying Mechanisms Associated with Diseases Using Classification Techniques, *WSEAS Transactions on Information Science and Applications*, 1, 1, 118, July (2004).
51. Margolin, I. Nemenman, C. Wiggins, G. Stolovitzky, and A. Califano, On the reconstruction of interaction networks with applications to transcriptional regulation. In G Chechik, C Leslie, G Ratsch, and K Tsuda, editors, *NIPS'04 Computational Biology Workshop*. arXiv: q-bio.MN/0410036 (2004).
52. *J.J. Rice, Y. Tu and G. Stolovitzky, Reconstructing synthetic biological networks using conditional correlation analysis, *Bioinformatics* (Epub 2004 Oct 14), 21(6):765-73 (2005).
53. *G. Stolovitzky, A. Kundaje, G.A. Held, K. Duggar, C. Haudenschild, D. Zhou, T. Vasicek, K. Smith, A. Aderem and J. Roach, Statistical analysis of MPSS measurements: application to the study of LPS activated macrophage gene expression, *Proc. Natl. Acad. Sci. USA*, 102 (5), 1402-1407, (2005).
54. *Wagner, J; Ma, L; Rice, JJ; Hu, W; Levine, AJ; Stolovitzky, GA, p53-Mdm2 loop controlled by a balance of its feedback strength and effective dampening using ATM and delayed feedback, *IEE PROCEEDINGS SYSTEMS BIOLOGY*, 152, 3, 109-118 (2005).
55. *L. Ma, J. Wagner, J.J. Rice, W. Hu, A. Levine and G. Stolovitzky, A plausible model for the digital response of p53 to DNA damage, *Proc. Natl. Acad. Sci. U S A*. 102, 14266 (2005).
56. Ma'ayan, S. L. Jenkins, S. Neves, A. Hasseldine, E. Grace, B. Dubin-Thaler, N. J. Eungdamrong, G. Weng, P. Ram, J. J. Rice, A. Kershenbaum, G. Stolovitzky, R. D. Blitzer and R. Iyengar, Formation of regulatory patterns during signal propagation in a Mammalian cellular network. *Science*. 309(5737):1078-83 (2005).
57. K. Basso, A. Margolin, I. Nemenman, U. Klein, C. Wiggins, G. Stolovitzky, R. Dalla Favera, and A. Califano, Reverse engineering of regulatory networks in human B cells, *Nature Genetics*, 37(4):382-90 (2005).
58. Alexe G, Bhanot G, Venkataraghavan B, Ramaswamy R, Lepre J, Levine AJ, Stolovitzky G., A Robust Meta-classification Strategy for Cancer Diagnosis from Gene Expression Data, *Proc IEEE Comput Syst Bioinform Conf*. 2005;:322-5 (2005).
59. G. Bhanot, G. Alexe, A.J. Levine and G. Stolovitzky, Robust diagnosis of non-Hodgkin lymphoma phenotypes validated on gene expression data from different laboratories, *Genome Inform Ser Workshop Genome Inform*;16(1):233-44 (2005).
60. *J.J. Rice, A. Kershenbaum and G. Stolovitzky, Lasting impressions: Motifs in protein-protein maps may provide footprints of evolutionary events, *Proc. Natl. Acad. Sci*, 102, 3173-4 (2005).
61. Margolin, I. Nemenman, K. Basso, U. Klein, C. Wiggins, G. Stolovitzky, R. Dalla Favera, and A. Califano. ARACNE: An algorithm for reconstruction of genetic networks in a mammalian cellular context. *BMC Bioinformatics* 7(Suppl 1):S7 (2006).
62. *G. A. Held, Keith Duggar and G. Stolovitzky, "Comparison of Amersham and Agilent microarray technologies through quantitative noise analysis," *OMICS*, 2006, 10(4), 532-544.

63. Wenwei Hu, Zhaohui Feng, Lan Ma, Gustavo Stolovitzky, Arnold J. Levine, A single nucleotide polymorphism in the MDM2 gene disrupts the p53-Mdm2 oscillation, *Cancer Res.*, 67(6):2757-65 (2007).
64. Roach JC, Smith KD, Strobe KL, Nissen SM, Haudenschild CD, Zhou D, Vasicek TJ, Held GA, Stolovitzky GA, Hood LE, Aderem A. Transcription factor expression in lipopolysaccharide-activated peripheral-blood-derived mononuclear cells, *Proc Natl Acad Sci U S A.* Oct 9;104(41):16245-50 (2007).
65. Yu H, Jansen R, Stolovitzky G, Gerstein M., Total ancestry measure: quantifying the similarity in tree-like classification, with genomic applications. *Bioinformatics*, 23(16): 2163-73 (2007).
66. *Stas Polonsky, Steve Rossmagel, and Gustavo Stolovitzky, Nanopore in metal-dielectric sandwich for DNA position control, *Applied Physics Letters*, 91,153103 (2007)
67. *J. Wagner and G. Stolovitzky, Stability and time-delay modeling of negative feedback loops, *Proceedings of the IEEE*, 98, 8, 1398-1410 (2008).
68. P. Du, G. Stolovitzky, P. Horvatovich, R. Bischoff, J. Lim, F. Suits, A Noise Model for Mass Spectrometry Based Proteomic, *Bioinformatics*, 24(8):1070-7 (2008).
69. *A. Ma'ayan, G. Cecchi, J. Wagner, R. Rao, R. Iyengar, G. Stolovitzky, Ordered cyclic motifs contribute to dynamic stability in biological and engineered networks., *Proc Natl Acad Sci U S A.*, 105(49):19235-40. (2008).
70. *Adam A. Margolin, Teresa Palomero, Pavel Sumazin, Andrea Califano, Adolfo Ferrando, Gustavo Stolovitzky, ChIP-on-chip significance analysis reveals large-scale binding and regulation by human transcription factor oncogenes, *Proc Natl Acad Sci U S A.*, 6;106(1): 244-9 (2009).
71. Gustavo Stolovitzky, Robert J. Prill and Andrea Califano, Lessons from DREAM 3 (2009)
72. M.J. Alvarez, M.C. Salibe, G. Stolovitzky, M. Rubinstein, F.J.Pitossi and O.L. Podhajcer, Distal Tumors Elicit Distinctive Gene Expression Changes in Mouse Brain Different from Those Induced by Arthritis, *The Open Neuroscience Journal*, 3, 13-25 (2009).

C. Under review

D. Technical Reports

73. Stolovitzky, Y. Gao, A. Floratos and I. Rigoutsos, Tandem Repeat Detection using Pattern Discovery, with Applications to the Identification of Yeast Satellites , IBM Research Report, RC21508 (1999).
74. G.Stolovitzky and A.Califano: Statistical significance of patterns in Biosequences, IBM Research Report, (1999),
75. Poppema S, Kluiver JL, Atayar C, van den Berg A, Rosenwald A, Hummel M, Lenze D, Lammert H, Stein H, Joos S, Barth T, Dyer M, Lichter P, Klein U, Cattoretti G, Gloghini A, Tu Y, Stolovitzky GA, Califano A, Carbone A, Dalla-Favera R, Melzner I, Bucur AJ, Bruderlein S, Dorsch K, Hasel C, Barth TF, Leithauser F, Moller P., Report: workshop on mediastinal grey zone lymphoma, *Eur J Haematol Suppl.* 2005 Jul;(66):45-52 (2005).
76. *Stas Polonsky, Steve Rossmagel, and Gustavo Stolovitzky, DNA transistor, IBM Research Report, RC24242 (2007).

E. Review, Chapters

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