Bibliography

Eberhard O. Voit
Books


Articles in Scientific Journals:


[14] Voit, E.O. and M.A. Savageau: Equivalence between S-systems and Volterra-


[55] Voit, E.O.: Canonical modeling: A review of concepts with emphasis on


Lee, Y. and E.O. Voit: Mathematical modeling of monolignol biosynthesis in...


[150] Voit, E.O., Z. Qi, and S. Kikuchi: Mesoscopic models of biomedical systems as intermediates between disease simulators and tools for discovering design principles: Dopamine-related diseases as case study. *Pharmacopsychiatry* 45(S1), S22-S30, 2012.


**Chapters in Books and Proceedings**


Other Publications:


Publications as a Member of the Malaria Host-Parasite Interaction Center (MaHPIC) Consortium:


Book Reviews


Abstracts and Conference Presentations


[18] Voit, E.O.: Comparison of accuracy of alternative models for biochemical pathways. Advanced NATO Research Workshop on Control in Metabolic


[54] Voit, E.O., W. L. Balthis, and Z. Zhang. Hierarchical Monte Carlo simulation--A


[105] Sims, K.J., F. Alvarez, Y. Okamoto, E. O. Voit, and Y.A. Hannun: Comparison of [3H] Palmitate labeled metabolites in the de novo sphingolipid synthetic pathway in wild type vs. ISC1 mutant of Saccharomyces cerevisiae. 54th Southeast Regional Meeting of the American Chemical Society, November 13-
16, 2002, Charleston, SC.


[107] Voit, E.O.: Biomedical Informatics, Computational Biology, Systems Biology — If we don’t know what it is, how can we teach it? Southern Regional Conference on Statistics, Jekyll Island, GA, June 8-11, 2003.


[127] Lall, R., S. Marino, J.S. Almeida, E.O. Voit, A.R. Neves, and H. Santos:


[138] Voit, E.O.: Metabolic modeling with time series data. Workshop: Unraveling the
Function and Kinetics of Biochemical Networks, Indiana University, May 9-11, 2005.


August, 2006.


Chou, I-C. and E. O. Voit: Recent Developments in Parameter Estimation and Structure Identification of Biochemical and Genomic Systems. Frontiers in Multi-Scale Systems Biology. Georgian Terrace Hotel, Atlanta, October 18-21,
2008.


[210] Voit, E.O.: Parameter estimation revisited (again!): Low SSE and speed are not enough. 11th International Conference on Molecular Systems Biology (ICMSB 2009), Max Planck Institute and Chinese Academy of Sciences, Shanghai, June 20-25, 2009.


Congress on Molecular Systems Biology, Lleida, Spain, 8-12 May, 2011.


[254] Voit, E.O. and Z. Qi: Effects of pesticides on dopamine metabolism: Implications for sleep research. 8th International Workshop on Computational


Voit, E.O.: Introduction to systems biology. 2012 Winter School in Mathematical and Computational Biology, St. Lucia, Queensland, Australia, 2-6 July 2012.

Voit, E.O.: Pathway analysis. 2012 Winter School in Mathematical and Computational Biology, St. Lucia, Queensland, Australia, 2-6 July 2012.


[280] Voit, E.O.: The challenge of infectious disease modeling. Workshop “From Within Host Dynamics to the Epidemiology of Infectious Disease.” Mathematical Biosciences Institute, Ohio State University, Columbus, OH, April 7-11, 2014.


Canada, August 21-26, 2016.


Media Coverage:


---

**Invited Conference Speaker**


[27] Three-day short course on power-law modeling for doctoral students. Gulbenkian Institute, Oeiras, Portugal, October 1-3, 1998.


[43] Biomedical Informatics, Computational Biology, Systems Biology —If we don’t know what it is, how can we teach it? Southern Regional Conference on Statistics, Jekyll Island, GA, June 8-11, 2003.


[59] Systems modeling. First International Conference of AB³C, the Brazilian Association for Bioinformatics and Computational Biology. Caxambu, Brazil, October 4-7, 2005.


[62] Teaching Interdisciplinary Courses in Integrative Biology, 2006 Systems Biology Symposium, National Taiwan University, Taipei, Taiwan, 18 January 2006.

[63] Key Note Address: Topics in Systems Biology, 2006 Systems Biology Symposium, National Taiwan University, Taipei, Taiwan, 18 January 2006.


[66] Biological Systems Large and Small, 20th Anniversary Symposium of the Institute for Systems Research, University of Maryland, College Park, Maryland, April 13-14, 2006.


[70] Introduction. Strategic Planning Workshop: Integrative BioSystems Institute, October 16-17, Chateau Élan, GA.


[73] Systems Biology and its Role in Personalized Medicine and Predictive Health. First International Workshop on Systems Radiation Biology, Neuherberg,
Germany, 14 - 16 February 2007.


[80] Pathway modeling in ill-defined biochemical systems, BESC Workshop on Biofuel Related Modeling, Atlanta, GA, October 9, 2007.


[102] The Georgia Research Alliance from the Viewpoint of Eminent Scholars. Meeting of the Georgia Research Alliance and the University of Texas at Dallas, November 2, 2009.


[105] The Role of Systems Modeling in Drug Discovery and Predictive Health. 5th Annual Computational and Theoretical Biology Symposium, Rice University, Houston, TX, December 4 – 6, 2009.


[118] Computational systems biology: From simple models to system simulation and the discovery of design principles. German Conference on Bioinformatics, Weihenstephan, September 7-9, 2011.


[121] Effects of pesticides on dopamine metabolism: Implications for sleep research. 8th International Workshop on Computational Neuropsychiatry, Munich, Germany, May 11-12, 2012.


[123] Models of the dynamics of the NADPH oxidase system in vascular cells. Symposium for Modeling Immune Responses from Complex Data, Rochester,

[124] Introduction to systems biology. 2012 Winter School in Mathematical and Computational Biology, St. Lucia, Queensland, Australia, 2-6 July 2012.

[125] Pathway analysis. 2012 Winter School in Mathematical and Computational Biology, St. Lucia, Queensland, Australia, 2-6 July 2012.


[130] A Heuristic Neurochemical Mobile and Interaction Model of Brain Homeostasis and Addiction. 9th International Workshop on Computational Neuropsychiatry, Munich, Germany, May 5-6, 2013.


[134] The challenge of infectious disease modeling. Workshop “From Within Host Dynamics to the Epidemiology of Infectious Disease.” Mathematical Biosciences Institute, Ohio State University, Columbus, OH, April 7-11, 2014.


[141] Computational Systems Biology, Disease Simulators, and Personalized Medicine, GRA Academy of Eminent Scholars, Atlanta, October 30, 2014.


[150] Understanding Biology through Mathematical Modeling, Workshop on (Re)Engineering Biology: The Emerging Engineering Paradigm in Biomedical
Engineering, Systems Biology, and Synthetic Biology, Center for Philosophy of Science, University of Pittsburgh April 15-16, 2016.

[151] Dynamic Models in the Malaria Host Pathogen Interaction Center, DARPA Investigator Meeting, Atlanta, GA, April 18, 2016.


Workshops Taught


Seminars

1983  Cybernetics Program, Universität Köln
      Department of Microbiology and Immunology, University of Michigan
      Division of Theoretical Medicine, Universität Köln (Series of three seminars)

1984  Zoologisches Institut, Universität Köln
      Landwirtschaftliches Institut, Universität Bonn
      Department of Biometry, Medical University of South Carolina

1985  Department of Chemical Engineering, University of Michigan

1986  Department of Microbiology and Immunology, University of Michigan
      Department of Mathematics, Pomona College
      Department of Biometry, Medical University of South Carolina (two seminars)

1987  Department of Statistics and Biometry, Emory University, Atlanta, Georgia
      Department of Statistics, University of Georgia, Athens, Georgia
      South Carolina Youth Academy of Sciences (Workshop)
      Department of Biometry, Medical University of South Carolina

1988  U.S. Department of Agriculture, Forest Service, Charleston, South Carolina
      Sigma Xi Society, Charleston Chapter
      National Seminar on Dynamical Systems, Akademie der Wissenschaften der DDR, Berlin, GDR
      Fachhochschule für Medizinische Informatik, Heilbronn, Germany
      Zoologisches Institut der Universität Köln, Köln, Germany
      Department of Biometry, Medical University of South Carolina

1989  Division of Biometrics, Food and Drug Administration, Washington, D.C.
      Center for Drug Evaluation and Research, Food and Drug Administration, Washington, D.C.

1990  Department of Biometry, Medical University of South Carolina
      Department of Biostatistics, University of South Carolina

1991  Department of Biostatistics, Epidemiology, and Systems Science, Medical University of South Carolina
      Board of Trustees, Medical University of South Carolina
      Fachbereich Mathematik/Informatik, Universität Osnabrück, Germany
      Office of Public Relations, Medical University of South Carolina

1992  Department of Biostatistics, Epidemiology, and Systems Science,
Medical University of South Carolina
Honeywell, Sensor and System Development Center
South Carolina High School Teacher Association

1993 Division of Modeling, Cooperative Research Center for Temperate Hardwood Forestry, Hobart, Tasmania

1994 CSIRO Forestry and Cooperative Research Center for Temperate Hardwood Forestry, Hobart, Tasmania
CSIRO Forestry, Headquarters, Canberra, Australia
Board of Trustees, Medical University of South Carolina
Department of Biometry and Epidemiology,
Medical University of South Carolina

1996 Mu Sigma Rho Student Career Development Seminar,
Medical University of South Carolina
Department of Environmental Health Sciences, School of Public Health,
University of South Carolina
Catalan Biological Society, Universitat de Lleida, Departament de Ciències Mediques Bàsiques

1999 Department of Biometry and Epidemiology,
Medical University of South Carolina
Department of Pharmacology,
Medical University of South Carolina

2000 Department of Biochemistry and Molecular Biology,
Medical University of South Carolina
Department of Biometry and Epidemiology,
Medical University of South Carolina

2001 Department of Biochemistry and Molecular Biology,
Medical University of South Carolina
Marine Biomedicine Program,
Medical University of South Carolina
Metabolic Pathway Group
Monsanto/Renessen, St. Louis
Graduate School Exposure Program
Medical University of South Carolina
Departments of Pharmaceutical Sciences and Pharmacy Practice,
Medical University of South Carolina

2002 Department of Molecular Cell Biology
Georgia Institute of Technology
Department of Chemistry and Biochemistry
University of Lisbon, Portugal

77
2003

BioTechnology Institute
University of Minnesota
Proteomics Group
Medical University of South Carolina

Department of Bioinformatics
University of Michigan
Department of Biomedical Engineering
Georgia Institute of Technology
Marine Biomedicine Program
Medical University of South Carolina
Computer and Computational Sciences & Bioscience
Los Alamos National Laboratories

2004

Proteomics Group
Medical University of South Carolina
Department of Mathematics
Clemson University
Department of Biostatistics, Bioinformatics and Epidemiology
Medical University of South Carolina
Department of Biology, National Dong Hwa University,
Hua Lien, Taiwan
Bioinformatics and Computational Biology Seminar
Georgia Institute of Technology
Bioinformatics Group
North Georgia Technical College
Computational Biology Center
University of Georgia
Agricultural University
Ås, Norway

2005

Resource Centers for Minority Aging Research
SC Cooperative for Healthy Aging in Minority Populations
Charleston, SC
Seminar for Problem-Based Learning Group
Georgia Institute of Technology
Department of Bioengineering
University of Illinois at Urbana-Champaign
School of Applied Physiology
Georgia Institute of Technology
Center for Nonlinear Science
Georgia Institute of Technology
Bioinformatics Program
Gulbenkian Institute, Oeiras, Portugal
Ludwig-Maximilian University
Munich, Germany
2006  School of Mathematics
        Georgia Institute of Technology
Proteomics Center
        Medical University of South Carolina
Bioinformatics and Computational Biology Program
        Georgia Institute of Technology
Center for Nutrient Gene Interactions
        University of Alabama, Birmingham, AL
Department of Biostatistics, Bioinformatics, and Epidemiology
        Medical University of South Carolina
Bioinformatics Group
        North Georgia Technical College

2007  Computational and Life Science Initiative
        Emory University
Integrative BioSystems Institute
        Georgia Institute of Technology
Department of Biostatistics
        Texas A & M University
Presentation to King Abdullah University of Science and Technology
        Delegation, Georgia Institute of Technology
Lehrstuhl für Physik
        Ludwig Maximilians Universität München
Instituto de Tecnologia Química e Biológica
        Oeiras, Portugal
Department of Chemistry
        Appalachian State University
Instituto de Engenharia de Sistemas e Computadores Investigação e
        Desenvolvimento, Lisbon, Portugal

2008  Center of the Study of Biological Systems
        Georgia Institute of Technology
Department of Bioinformatics and Computational Biology
        M.D. Anderson Cancer Center, Houston, TX
Department of Chemistry and Biochemistry,
        Georgia Institute of Technology
Trinity Presbyterian Church Men’s Breakfast
Systems Biology Group, Life Science University,
        Ás, Norway
Lehrstuhl für Genomorientierte Bioinformatik, Helmholtz Zentrum
        München, Germany
Bioinformatics Colloquium, Lehrstuhl für Physik
        Ludwig Maximilians Universität, München, Germany
Institute for Systems Biology,
        Shanghai University, Shanghai, PRC
VHA Georgia Hospital Association
Department of Chemical and Biomolecular Engineering,
Georgia Institute of Technology

2009 Computational Science and Engineering Division
Georgia Institute of Technology
Center for Computational Biology, University of Georgia

2010 School of Industrial and Systems Engineering
Georgia Institute of Technology
Szent Györgyi Lecture, Mayo Clinic, Rochester, MN
Systems Biology Group, University of Coimbra, Portugal
Department of Mathematics, Christian College of Madras, Chennai, India
Division of Biostatistics, Moffitt Cancer Center, Tampa, FL

2011 Center for Computational Biology, University of Georgia
Directorate of Biological Sciences, National Science Foundation, Washington, DC
Distinguished Lecture, Department of Mathematics, Georgia State University

2012 Samuel Nobel Foundation, Aardmore, OK
NIEHS PD-CERC Investigator Meeting, Atlanta, GA
Center for Cystic Fibrosis, Emory University
NIAID Malaria Investigator Meeting, Atlanta, GA
Division of Individualized Medicine, Mayo Clinic, Rochester, MN
Division of Bioinformatics, Medical University of South Carolina

2013 Biochemistry and Redoc Biology Center, University of Nebraska, Lincoln, NE
Integrative BioSystems Institute, Georgia Tech, Atlanta, GA
Biomathematics Seminar, Florida State University, Tallahassee, FL

2014 Department of Biostatistics, University of Louisville
Universidad Nacional Autónoma de Mexico, Morelos, Mexico (Video-Seminar)
BioSys Doctoral Program, Universidade de Lisboa, Lisboa, Portugal
Department of Biological Engineering, Utah State University, Logan, UT

2015 Plant Research Laboratory, Michigan State University
Department of Bioengineering, University of Texas at Dallas
ETH Zürich, Switzerland
Computational Systems Biology Group, Basel, Switzerland
College of Pharmaceutical Science, Korea University
Chung Nam University, Korea
Korea Advanced Institute of Science and Technology
Stony Brook University

2016 Department of Environmental Health Sciences, University of South Carolina
Center for Innovative Engineering, University of Texas at Dallas
Otsuka Pharmaceuticals, Atlanta
Institute for Biodiscovery, University of North Texas