

George V. Popescu

Associate Research Professor

Institute for Genomics, Biocomputing and Biotechnology, Mississippi State University,
Pace Seed Lab 118, 650 Stone Blvd. P.O. Box 6040, Mississippi State, MS 39762,

Phone: 607-379-1318, e-mail: gvp18@msstate.edu

ORCID: <https://orcid.org/0000-0002-7580-6792>

Google Scholar: <https://scholar.google.com/citations?user=7XZANIQAAAAJ&hl=en>

Education

2004 – 2006 Postdoctoral Training in **Genomics, Bioinformatics and Systems biology**, Center for Excellence in Genomic Sciences, Yale University.

1996 - 2001 **Ph.D. in Computer Engineering**, Rutgers – The State University of New Jersey

1988-1993 **B.S. /M.S. in Information Engineering**, University “Politehnica” Bucharest, Romania;
thesis research conducted at INP Grenoble, France.

Professional Appointments

2023-present **Associate Research Professor**, Institute for Genomics, Biocomputing and Biotechnology and Biochemistry, Nutrition and Health Promotion Department, Mississippi State University

2016-2023 **Assistant Research Professor**, IGBB, Mississippi State University

2015-2016 **Senior lecturer**, Computer Science Department, Central Washington University

2011-2015 **Senior scientist**, National Institute for Lasers, Plasma and Radiation Physics, Bucharest (NILPRP), Romania

2011 - 2015 **Senior scientist** (2012-2015), Adjunct (2011-2012), Boyce Thompson Institute

2009 - 2013 **Associate research professor**, University “Politehnica” Bucharest:

2007 - 2008 **Postdoctoral** visiting positions at Boyce Thompson Institute/Cornell, DIMACS

2004 - 2006 **Postdoctoral Research Associate**, Yale University

2001 - 2004 **Research Staff Member**, IBM TJ Watson Research Center

2000 **Summer Intern**, IBM TJ Watson Research Center

1996 - 2000 **Research Assistant**, Center for Advanced Information Processing, Rutgers University

1996 **Research Assistant**, Dept. of Electrical and Computer Engineering, University of Colorado, Colorado Springs

1993 - 1995 **Junior Faculty**, Researcher, University “Politehnica” Bucharest

1993 **TEMPUS Research student**, LTIRF Grenoble France

Awards

3 **PRECISI Research Excellence Awards**, UEFISCDI, 2013, 2014, 2015

2 **IBM Invention Achievement Awards**, 2003, 2004

VR 2002 mention **award for conference paper**

TEMPUS (European Commission Education Program) Fellowship, 1993

“Traian Lalescu” National Physics Contest Award - college, 1990

National Merit Scholarship - college, 1990, 1991, 1992, 1993

Romanian **National Physics Olympiad** Awards 1984, 1985, 1986

Member of professional societies

ASBMB - American Society for Biochemistry and Molecular Biology

ISCB - International Society for Computational Biology

ACM - Association for Computing Machinery, senior member

EPS - European Physical Society

Publications and Patents

5 book chapters, 40 journal papers, and over 80 publications in journal and conference proceedings.

ORCID: 0000-0002-7580-6792. Hirsch index 28.

8 US/EU patents.

Reviewer activity

Bioinformatics, Nature-Systems Biology, Frontiers in Plant Science, BMC Bioinformatics, BMC Cancer, Journal of Computational Biology, IEEE Transactions Journals, ACM journals.

Teaching

BCH 8990 – Systems Biology BCH-EPP Department, MSU, Fall 2018)

CS 427 - Algorithm Analysis (CS Department, CWU, Winter 2016)

CS 540 - Algorithms for Biological Data Analysis (CS Department, CWU, Fall 2015)

Designed a curriculum of 18 courses, organized one biophysics and two data science laboratories and an HPC cluster for a graduate program in Bio-imaging, Bioinformatics, and Complex Systems (Fall 2009-Spring 2012).

Bioinformatics and computational genomics (UPB, Spring 2011, Spring 2012)

Systems biology and molecular modeling (UPB Fall 2011, Fall 2012)

Optimization algorithms (UPB Spring 2011, Spring 2012)

Matrix computations (UPB Fall 2010)

Structure and dynamics of complex networks (UPB 2010)

Mathematical modeling and statistics for engineering (UPB 2009)

Image processing and analysis (UPB 1993-1996)

University Service

Invited Research Professor, ICUB, University of Bucharest, May-July 2024.

Graduate Faculty member, Computational Biology Graduate Program, Level 1 appointment.

Graduate Faculty member, Department of Biochemistry, Molecular Biology, Plant Pathology and Entomology, CALS, Level 1 appointment.

Graduate Faculty member, Department of Computer Science and Engineering, Bagley College of Engineering, Level 1 appointment.

Graduate student advisor, Department of Mathematics and Statistics, College of Arts and Sciences

MSU University Curriculum Committee August 2022-present.

DAFVM Faculty Senate, University Senate Service, July 1, 2018 - June 30, 2021

Funding

Collaborative Proposal: Molecular patterns and spatiotemporal dynamics of redox sensing and signaling networks NSF RoL, 2021-2025, PI.

Metagenomics Guided Methods for Biocontrol of Root Microbial Communities with Anti-fungal Activities in Soybean. MAFES - Mississippi Soybean Promotion Board. 2024-2025, PI.

Characterize root microbial communities with growth-promoting and anti-fungal activities in soybean. MAFES - Mississippi Soybean Promotion Board. 2020-2024, PI.

Discovery of bacterial strains with anti-fungal properties in MS Delta root microbiomes. MAFES, 2023-2025, PI.

New methods for DNA copy number variation analysis. August 2020 – July 2021. REU MAFES.

New methods for Genome-Wide Association Studies and functional data mining in plants. August 2020 – June 2021). REU MAFES.

Structure and evolution of the plant kinome. October 2020 - August 2021. REU ORED.

Collaborative Proposal: Function and Regulation of Thimet Oligopeptidase-Mediated Proteolytic Pathways in Plant Stress, NSF MCB, 2017-2021, 195K, co-PI.

Analysis of thiol switches in plant-specific thimet oligopeptidases (TOPs), Sponsored by ORED, \$2,000.00. (September 1, 2017 - September 1, 2018).

Identification and Analysis of Plant Gene Regulatory Networks for Crop Improvement. MAFES, 2018-2019, PI.

Analysis of transcriptional responses of sweet potato under abiotic stress, MAFES, 2017-2018, co-PI.

Activity modeling and simulation of bacterial efflux pump inhibitors based on advanced laser methods, PN-II-PT-PCCA-2011-3.1-1350, 2012-2015, 500K USD, PI.

Spectral analysis of periodic epi-organization of genomes, BRANCUSI-RO-FR-2013, 2013-2014, PIs: George Popescu, Francois Kepes (CNRS).

Inverse Networks Problems in Systems Biology: new methods for signaling networks structure and dynamics analysis, XSEDE allocation grant, 2013-2014, PI: George Popescu (BTI).

Boyce Thompson Institute bioinformatics grant, 2012-2014, 100K, PI.

Advanced master program in Bio-imaging, Bioinformatics, and Complex Systems, POSDRU-61756 2010-2013, 4M USD, Co-organizer.

IBM Adventurous Research program: OZONE: Self-managing Overlay for Large Scale Distributed Applications (IBM Research) 2002-2004.

Middleware for supporting interactive applications on the grid (IBM), 2003-2004.

Institute service, committees and special responsibilities

Reviewer for Granting Agencies: NSF DBI, NSF SSB, NIH SuRE R16, NSF Computational biology, Algorithms in the Field 2017, NSF *GRFP* panelist. HORIZON 2020 reviewer. UEFISCDI 2014, 2015, 2017, DOE – SmartGRID 2009.

Frontiers in Plant Science Associate Editor

Nature Scientific Reports Editorial Board

BMC Bioinformatics Editorial Board

Lead invited editor for Complexity Journal on *Dynamical Analysis of Biological Systems*, (co-editors: Eberhard O. Voit, GATECH, Constantin Udriste, UPB).

Workshop Organizer, Poster presentations, *The 15th Annual MCBIOS Conference*, Starkville, MS. (September 1, 2017 - March 31, 2018).

Co-organization of COST activities: “Antibiotic transport and efflux: new strategies to combat bacterial resistance” (BM0701) 2012.

Designed and co-developed "Bio-Photonics Laboratory" infrastructure at the UPB, 2010-2012.

IBM academic initiative program 2012-2015

IBM summer intern mentorship program 2002-2003

IBM Broadband Computing Strategy team 2001-2002

Research associate, graduate student training

Name	Training period	Present Position
Mohit Verma	10/21-08/23	Postdoctoral student, IGBB
Xin Ye	07/22-07/23	Postdoctoral student, BCH-EPP, MSU
Philku Lee	05/19-12/20	Postdoctoral student, CAVS, MSU
Rezwana Setu	12/2022-Present	Graduate research assistant, BCH-EPP, MSU
Josh Mitchell	12/2022-Present	Graduate research assistant, BCH-EPP, MSU
Asanka Duwage	01/20-Present	Graduate research assistant, Math and Statistics Dept., MSU
Tobias Oketch	01/19-Present	Graduate research assistant, Math and Statistics Dept., MSU
Thualfeqar Al-Mohanna	01/18-12/19	Lecturer
Drew Ferrell	08/20-Present	Graduate research assistant, BCH-EPP, MSU
Philip Berg	01/18-Present	Postdoctoral student, BCH-EPP, IGBB, MSU
Himangi Srivastava	06/18-Present	Graduate research assistant, ECE, MSU
Norbert Bokros	07/16-12/2018	Graduate research assistant, BCH-EPP, MSU
Gizem Dimlioglu	07/16-08/20	Graduate research assistant, BCH-EPP, MSU
Tatiana Alexandru	2013-2015	PhD candidate, NILPRP and University of Bucharest
Alexandru Stoicu	2014-2015	M.S. candidate, NILPRP and University of Bucharest
Camelia Moldovan	2012-2013	M.S. candidate, University Politehnica of Bucharest

Languages: English, French, Romanian

Selected publications

Journal Papers

Philip Berg, George Popescu. 2024. Mavis: An Ensemble of Methods for Mean-Variance Trend Modeling and Bayesian Decision in Comparative Proteomics. Bioinformatics submission.

Philip Berg, George Popescu. 2023. Baldur: Bayesian Hierarchical Modeling for Label-Free Proteomics with Gamma Regressing Mean-Variance Trends. *Mol Cell Proteomics*. 2023 Dec;22(12):100658. doi: 10.1016/j.mcpro.2023.100658. Epub 2023 Oct 7.

Anthony A. Iannetta, Philip Berg, Najmeh Nejat, Amanda L. Smythers, Rezwana R. Setu, Uyen Wesser, Ashleigh L. Purvis, Zoe A. Brown, Andrew J. Wommack, Sorina C. Popescu, Leslie M. Hicks, George V. Popescu. 2023. High throughput peptidomics elucidates immunoregulatory functions of plant thimet oligopeptidase-directed proteostasis. *bioRxiv* 2022.05.11.491536; doi: <https://doi.org/10.1101/2022.05.11.491536>

Himangi Srivastava, Drew Ferrell, and George V. Popescu. (2022). NetSeekR: A networks analysis pipeline for RNASeq time series data. *BMC bioinformatics* 23 (1), 1-14.

O. Olorunwa, B. Adhikari, S. Brazel, S.C. Popescu, G.V. Popescu, T.C. Barickman. (2022). Short waterlogging events differently affect morphology and photosynthesis of two cucumber (*Cucumis sativus* L.) cultivars, *Front. Plant Sci.*, 22 July 2022, <https://doi.org/10.3389/fpls.2022.896244>

Elizabeth K. Brauer, Nagib Ahsan, George V. Popescu, Jay J. Thelen, Sorina C. Popescu. (2022). Back from the dead: the atypical kinase activity of a pseudokinase regulator of cation fluxes during inducible immunity, *Front. Plant Sci.*, doi: 10.3389/fpls.2022.931324

Popescu, S.C., Tomaso-Peterson, M., Wilkerson, T., Bronzato-Badial, A., Wesser, U., Popescu, G.V. (2022). Metagenomic Analyses of the Soybean Root Mycobiome and Microbiome Reveal Signatures of the Healthy and Diseased Plants Affected by Taproot Decline. *Microorganisms*, 10, 856. <https://doi.org/10.3390/microorganisms10050856>

Philku Lee, George Popescu, Seongjai Kim, (2022). Stable rotational symmetric schemes for nonlinear reaction-diffusion equations. *Computers & Mathematics with Applications*. Volume 109, 1 March 2022, Pages 191-203.

Thualfeqar Al-Mohanna, Najmeh Nejat, Anthony A. Iannetta, Leslie M. Hicks, George V. Popescu, and Sorina C. Popescu, Arabidopsis thimet oligopeptidases are redox-sensitive enzymes active in the local and systemic plant immune response. *Journal of Biological Chemistry* (296), 22 April 2021, DOI: <https://doi.org/10.1016/j.jbc.2021.100695>

Philku Lee, George V. Popescu, and Seongjai Kim. "Stable Rotational Symmetric Schemes for Nonlinear Reaction-Diffusion Equations", submission to *Computers & Mathematics with Applications*.

Philku Lee, **George Popescu**, Seongjai Kim, (2019). *Nonoscillatory Alternating Direction Procedures for Reaction-Diffusion Equations*. *Complexity* 2020.

<https://www.hindawi.com/journals/complexity/2020/5163704/>

Al-Mohanna, T., Ahsan, N., Bokros, N. T., Dimlioglu, G. C., Reddy, R. K., Shankle, M. C., **Popescu, G. V.**, Popescu, S. C. (2019). Proteomics and Proteogenomics Analysis of Sweetpotato (*Ipomoea batatas*) Leaf and Root. *J Proteome Res.*18(7):2719-2734. doi: 10.1021/acs.jproteome.8b00943. Epub 2019 Jun 17.

Bokros, N., Popescu, S. C, **Popescu, G. V.** (2019). Multispecies MAPKKK analysis reveals conserved MAP3K expansions and defines the MAP3K gene family in *Gossypium hirsutum*. *BMC Bioinformatics*. 2019 Mar 14;20(Suppl 2):99. doi: 10.1186/s12859-019-2624-9.

Berg, P., McConnell, E., Hicks, L., Popescu, S. C, **Popescu, G. V.** (2019). Evaluation of linear models and missing value imputation for the analysis of peptide-centric proteomics. *BMC Bioinformatics*. 2019 Mar 14;20(Suppl 2):102. doi: 10.1186/s12859-019-2619-6. (best paper).

Brauer, E. K., **Popescu, G. V.**, Singh, D., Calvino, M., Gupta, B., Chakravarthy, S., Collmer, A., Popescu, S. C. (2018). Integrative network-centric approach reveals signaling pathways associated with plant resistance and susceptibility to *Pseudomonas syringae*. *PLOS Biology*, 16(12), e2005956.

Berg, P. C., McConnell, E., Westlake, T., Wilson, K., **Popescu, G. V.**, Hicks, LM, Popescu, S. C. (2018). Proteome-wide analysis of cysteine reactivity during effector-triggered immunity. *Plant Physiology*, pp.01194.2018.

Campe R, Langenbach C, Leissing F, **Popescu GV**, Popescu SC, Goellner K, Beckers G, Conrath U. (2015). "ABC transporter PEN3/PDR8/ABCG36 interacts with calmodulin and is required for Arabidopsis nonhost resistance". *New Phytol.* 2016 Jan;209(1):294-306. doi: 10.1111/nph.13582. Epub 2015 Aug 28.

Westlake TJ, Ricci WA, **Popescu GV** and Popescu SC (2015). "Dimerization and thiol sensitivity of the salicylic acid binding thimet oligopeptidases TOP1 and TOP2 define their functions in redox-sensitive cellular pathways". *Front. Plant Sci.* 6:327. doi: 10.3389/fpls.2015.00327

Singh DK, Calviño M, Brauer EK, Fernandez-Pozo N, Strickler S, Yalamanchili R, Suzuki H, Aoki K, Shibata D, Stratmann JW, **Popescu GV**, Mueller L, and Popescu SC (2014) "The tomato kinome and the TOKN ORFeome: resources for the study of kinases and signal transduction in tomato and Solanaceae ." *Molecular Plant Microbe Interaction*; 27:7-17.

Magali M, Westlake T, Zampogna G, **Popescu GV**, Tian M, Noutsos C, and Popescu SC. "The Arabidopsis Oligopeptidases Top1 and Top2 Are Salicylic Acid Targets That Modulate SA-Mediated Signaling and the Immune Response." *The Plant Journal* 76, no. 4: 603-614.

Lee HY, Bowen CH, **Popescu GV**, H.-G. Kang, N. Kato, S. Ma, S. Dinesh-Kumar, M. Snyder and S. C. Popescu, "RTNLB1 and RTNLB2 Reticulon-Like Proteins Regulate Intracellular Trafficking and Activity of the FLS2 Immune Receptor, *Plant Cell Online* 2011, 10.1105/tpc.111.089656.

Popescu SC, **Popescu GV**, Bachan S, Zhang Z, Gerstein M, Snyder M, and S. P. Dinesh-Kumar, "MAPK target networks in *Arabidopsis thaliana* revealed using functional protein microarrays", *Genes Dev.* 2009 Jan 1;23(1):80-92. Epub 2008 Dec 18.

Popescu SC, **Popescu GV**, Bachan S, Zhang Z, Seay M, Gerstein M, Snyder M, and S. P. Dinesh-Kumar, "Differential binding of calmodulin-related proteins to their targets revealed through high-density *Arabidopsis* protein microarrays", *PNAS.* 2007 Mar 13;104(11):4730-5.

Urban AE, J. Korbel, R. Selzer, T. Richmond, J. Cubells, A. Hacker, **Popescu GV**, R. Green, B. Emanuel, M. Gerstein, S. M. Weissman and M. Snyder, "High resolution mapping of DNA copy alterations in human chromosome 22 using high density tiling oligonucleotide arrays," *PNAS*, March 2006, 103 (12), pp. 4534-4539.

Feingold, E.A. et al.. "The ENCODE (ENCyclopedia of DNA Elements) Project." *Science* 306:636-640.

Selected Book Chapters

Al-Mohanna, T., **Popescu G. V.**, Popescu S. C., Methods to analyze the redox reactivity of plant proteins. Chapter in "Reactive Oxygen Species in Plants: Methods and Protocols", *Methods in Molecular Biology*, pp.161-179, Springer Protocols, Humana Press. 2022.

Al-Mohanna, T. C., Bokros, N. T., Ahsan, N. Popescu, S. C., **Popescu, G. V.** (2019). Methods for optimization of protein extraction and proteogenomic mapping in sweetpotato. Book chapter in *Plant Proteomics Methods and Protocols (Springer Nature Methods in Molecular Biology)*, accepted.

Popescu GV, C. Noutsos, Popescu SC (2016) "Big Data in Plant Science: data mining techniques for plant genomics and proteomics", *Methods in Molecular Biology: "Data Mining Techniques for the Life Sciences, 2-nd edition"* (Springer). Eds: Carugo, O., Eisenhaber, F.

Brauer EK, Popescu SC, **Popescu GV**, (2014) "Experimental and analytical approaches to characterize plant kinases using protein microarrays." *Methods in Molecular Biology: "Plant MAP Kinases"* (Springer), pp. 217-235.

Popescu GV, Popescu SC, "Complexity and modularity of MAPK signaling networks", *Handbook of Research in Computational and Systems Biology: Interdisciplinary Applications*, IGI Global 2010.

Course notes

Popescu GV, Popescu SC, *Selected Topics in Computational Biology*, University "Polithenica" Bucharest Press, 2013.

Other publications

Andrei IR, **Popescu GV**, Pascu ML. "Optical spectrum behaviour of a coupled laser system under chaotic synchronization conditions," *Journal of the European Optical Society-Rapid Publications Volume: 8*, 2013, 6 pp. DOI: 10.2971/jeos.2013.13054

Pascu ML, **Popescu GV**, Ticos CM, Andrei IR. "Unresonant interaction of laser beams with microdroplets," *Journal of the European Optical Society-Rapid Publications Volume: 7*, 2012, 18 pp. DOI: 10.2971/jeos.2012.12001

M. Bouzit, G. Burdea, **Popescu GV**, and R. Boian, "The Rutgers Master II-New Design Force-Feedback Glove", IEEE/ASME Transactions on Mechatronics, Vol. 7(2), pp. 256-263, June 2002.

Girone M., Burdea, G., M. Bouzit, **Popescu GV**, and J. Deutsch, "A Stewart Platform-based System for Ankle Telerehabilitation," invited article, Special Issue on Personal Robotics, Autonomous Robots, Vol. 10, pp. 203-212, Kluwer, March 2001.

Burdea, G., **Popescu GV**, V. Hentz, and K. Colbert, "Virtual Reality-based Orthopedic Tele-rehabilitation," IEEE Transactions on Rehabilitation Engineering, Vol. 8, No. 3, pp. 429-432, September 2000.

A. Kolcz, J. Alspector, M. Augusteijn, R. Carlson and **Popescu GV**, "A line-oriented approach to word spotting in handwritten documents," Pattern Analysis and Applications, vol. 3, no. 2, pp. 153-168, 2000.

Popescu GV, G. Burdea, M. Bouzit, M. Girone, and V. Hentz, "A Virtual-Reality-Based Telerehabilitation System with Force Feedback," IEEE Transactions on Information Technology in Biomedicine, vol. 4, No. 1, pp. 45-51, March 2000.

G. Burdea, G. Patounakis, **Popescu GV**, R. E. Weiss, "Virtual Reality-based Training for the Diagnosis of Prostate Cancer", IEEE Transactions on Biomedical Engineering, Vol. 46, No. 10, pp 1253-1260, October 1999.

Popescu GV, G. Burdea, and H. Trefftz, "Multimodal interaction modeling," in Handbook of Virtual Environments; Design, Implementation and Applications, K. Stanney ed., 1-st edition Lawrence Erlbaum Associates, Inc. February 2002, 2-nd edition CRC Press 2014.

Popescu GV, "Distributed indexing networks for efficient large-scale group communication," in Handbook of Research on P2P and Grid Systems for Service-Oriented Computing: Models, Methodologies and Applications, N. Antonopoulos, G. Exarchakos, M. Li and A. Liottaeds, IGI Global 2009.

Conference proceedings

Berg, P. (Author & Presenter), Popescu, S. C. (Author), Popescu, G. V. (Author), Southeast Regional Biophysical Consortium, "Methodologies for proteome-wide analysis of cysteine reactivity during effector-triggered immunity," Mississippi State, Mississippi, USA. (June 4, 2018).

Bokros, N. (Author & Presenter), Popescu, S. C. (Author), Popescu, G. V. (Author), The 15th Annual MCBIOS Conference: MCBIOS 2018 (MCBIOS-XV), "The Examination of MAP3Ks in Plants and Protein Kinase Characterization," The MidSouth Computational Biology and Bioinformatics Society, Starkville, MS. (March 29, 2018).

Andrei IR, **Popescu GV**, Ticos CM, Pascu ML. "Optical Spectrum Analysis of Chaotic Synchronization in a Bidirectional Coupled Semiconductor Laser System," Chaos and Complex Systems, Ch 60, pp. 425-429. Springer, 2013, DOI: 10.1007/978-3-642-33914-1_60

Popescu GV, "Transposition Search for Optimal Graph Embedding", INFORMS Annual Meeting, Pittsburgh, 2006.

G. Popescu, Z. Liu. "Network overlays for efficient control of large scale dynamic groups" Proceedings of DS-RT 2006. Torremolinos, SPAIN, pp: 135-142, 2006.

T. Chang, J. Fan, M. Ahamad, **G. Popescu**, Z. Liu. "Preference-aware overlay topologies for group communication," Proceedings of GLOBECOM '05: IEEE Global Telecommunications Conference, St Louis, MO, Vols 1-6 Pages: 641-645, 2005

Simon J. E. Taylor, **George V. Popescu**, J. Mark Pullen, Stephen John Turner. "Distributed Simulation and the Grid: Position Statements." Proceedings of DS-RT 2004, Budapest, HUNGARY, pp. 144-149, 2004.

G. Popescu, Z. Liu. "Stateless application-level multicast for dynamic group communication", Proceedings of DS-RT 2004. Budapest, HUNGARY, pp. 20-28, 2004.

G. Popescu, C. Codella. "An Architecture for QoS data replication in Networked Virtual Environments" Proceedings of IEEE VR2002, March 2002, Orlando Fl, pp. 41-48. 2002.

T. Chang, **G. Popescu**, C. Codella. "Scalable and Efficient Update Dissemination for Interactive Distributed Applications", Proceedings of ICDCS 2002, Vienna, Austria, pp 143-150, 2002.

G. Popescu, Z. Liu. "On Scheduling 3D model transmission in Networked Virtual Environment" Proceedings of IEEE DSRT 2002, pp. 127-134, 2002.

Popescu GV, G. Burdea and R. Boian, "Shared Virtual Environments for Telerehabilitation," Proceedings of Medicine Meets Virtual Reality 2002, IOS Press, Newport Beach CA, pp. 362-368, January 23-26 2002.

M. Bouzit, **Popescu GV**, G. Burdea, and R. Boian, "The Rutgers Master II-ND Force Feedback Glove", Proceedings of IEEE VR 2002 Haptics Symposium, pp. 145-152, Orlando FL, March 2002.

M. Girone, G. Burdea, M. Bouzit, **Popescu GV** and J. Deutsch, "Orthopedic Rehabilitation using the "Rutgers Ankle" Interface," Proceedings of Virtual Reality Meets Medicine 2000, IOS Press, pp. 89-95, January 2000.

Popescu GV, G. Burdea, M. Bouzit, "Virtual Reality Simulation Modeling for a Haptic Glove," Computer Animation'99 Conference, Geneva, Switzerland, pp. 195-200, May 26-28, 1999.

Popescu GV, G. Burdea, M. Bouzit, M. Girone, and V. Hentz, "PC-Based Telerehabilitation System With Force Feedback," Proceedings of Medicine Meets Virtual Reality (7) Conference, "The Convergence of Physical Informational Technologies: Options for a New Era in Healthcare", IOS Press, Amsterdam, Vol. 62, pp. 262-267, 1999.

Popescu GV and G. Burdea, "Dextrous Haptic Interface for Jack," ASME WAM, Seventh Annual Symposium on Haptic Interfaces for Virtual Environment, Anaheim CA, November 19-20, DSC Vol. 64, pp. 189-194, 1998.

Burdea, G., G. Patounakis, **Popescu GV** and R. Weiss, "Virtual Reality Training for the Diagnosis of Prostate Cancer," IEEE International Symposium on Virtual Reality and Applications (VRAIS'98), Atlanta, GA, March, pp. 190-197. Reprinted in IEEE Proceedings of Information Technology Applications in Biomedicine (ITAB'98), Washington DC, pp. 6-13 invited talk, May 16-17, 1998.

Andre, M., **Popescu GV**, A. Shaikh, A. Medl, I. Marsic, C. Kulikowski, and J. L. Flanagan, "Integration of Speech and Gesture for Multimodal Human-Computer Interaction," Second International Conference on Cooperative Multimodal Communication, 28-30 January 1998, Tilburg, The Netherlands.

Medl, A., I. Marsic, **Popescu GV**, A. Shaikh, M. Andre, C. Kulikowski and J. Flanagan, "Multimodal Interface for Collaborative Mission Planning," Workshop on Real-time Intelligent User Interfaces for Decision Support, and Information Visualization, 6-9 January 1998, San Francisco, CA.

Burdea, G., S. Deshpande, **Popescu GV**, N. Langrana, D. Gomez, D. DiPaolo, and M. Kanter, "Computerized Hand Diagnostic/Rehabilitation System Using a Force Feedback Glove," Proceedings of Medicine Meets Virtual Reality 5 Conference, pp. 141-150, 1997.

A. Kolcz, J. Alspector, M. Augusteijn, R. Carlson and **Popescu GV**, "A line-oriented approach to word spotting in handwritten documents," University of Colorado at Colorado Springs Technical Report 1998-ECE-1 March 1998.

A. Kolcz, J. Alspector, M. Augusteijn, R. Carlson and **Popescu GV**, "Visual Keyword Based Word-Spotting in Handwritten Documents," Proceedings of the SPIE International Symposium on Document Recognition V (Part of the SPIE Photonics-West' 98 Conference), San Jose, USA, January 26-30 1998.

A. Kolcz, J. Alspector, M. Augusteijn, R. Carlson and **Popescu GV**, "Keyword search in handwritten documents," Proceedings of the International Workshop on Applications of Neural Networks to

Telecommunications 3 (IWANNT'97), Melbourne, Australia. Eds. J. Alspector, R. Goodman and T. X. Brown. pp. 171-180. LEA, Publishers, Mahwah, New Jersey, 1997.

C. Vertan, V. Buzuloiu, **Popescu GV**. "Morphological Like Operators for Color Images", in Proc. of EUSIPCO' 96, 10-13 Sept. 1996, Trieste, Italy, vol. 1, pp. 165-168

C. Vertan, M. Malciu, V. Buzuloiu, **Popescu GV**. "Median Filtering Techniques for Vector Valued Signals", in Proc. of the IEEE International Conference on Image Processing ICIP' 96, 16-19 Sept. 1996, Lausanne, Switzerland, vol. 1, pp. 977-980.

V. Buzuloiu, C. Vertan, **Popescu GV**, M. Malciu: "Introducing Mathematical Morphology for Vector Signals", in Proc. of the 3rd Conference on Applied and Industrial Mathematics ROMAI '95, 17-19 Sept. 1995, Oradea, Romania.

Popescu GV, Buzuloiu V., Malciu M., Vertan C., "Multidimensional signal compression using wavelet transform", The XXXVI International Workshop of the A.T.M. Bucharest, Vol. 4, pp. 191-198, Bucharest, 16-17 November 1995.

Popescu GV, Luthon F., Caplier A., "Analog resistive networks for motion detection", 4-th International Conference in Optics, "Romopto '94", Proceedings SPIE Vol. 2461, 3 pp., Bucuresti, 5-8 Sept. 1994.

V. Buzuloiu, M. Malciu, **Popescu GV**, "Improvements to parameter extraction from noisy signals", 4-th International Conference in Optics, "Romopto '94", Proceedings SPIE Vol. 2461, 4 pp., Sept. 1994.

Luthon F., **Popescu GV**, Caplier A., "An MRF Based motion detection algorithm implemented on analog resistive network", ECCV '94, Lecture notes in Computer Science, Jan-Olof-Eklund Ed., Vol. 800, pp. 167-174, Stockholm, May 94.