Curriculum Vitae

Michael M. Zavlanos

Duke University
Department of Mechanical Engineering &
Materials Science
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RESEARCH INTERESTS

Networked Robots and Systems; Distributed Control and Optimization; Formal Methods and Control Synthesis; Robot Motion and Task Planning; Optimal Wireless Networking; Distributed Sensing and Estimation.

ACADEMIC EMPLOYMENT

Mary Milus Yoh and Harold L. Yoh, Jr. Associate Professor (Jul. 2018 - present)
Primary Appointment: Dept. of Mechanical Engineering & Materials Science
Secondary Appointments: Dept. of Electrical & Computer Engineering, Dept. of Computer Science
Duke University, Durham, NC

Associate Professor (Jul. 2018 - present)
Primary Appointment: Dept. of Mechanical Engineering & Materials Science
Secondary Appointments: Dept. of Electrical & Computer Engineering, Dept. of Computer Science
Duke University, Durham, NC

Assistant Professor (Aug. 2012 - Jun. 2018)
Primary Appointment: Dept. of Mechanical Engineering & Materials Science
Secondary Appointments: Dept. of Electrical & Computer Engineering, Dept. of Computer Science
Duke University, Durham, NC

Assistant Professor (Jan. 2010 - Jul. 2012)
Dept. of Mechanical Engineering
Stevens Institute of Technology, Hoboken, NJ

EDUCATION

Ph.D., Electrical & Systems Engineering (Aug. 2008)
University of Pennsylvania, Philadelphia, PA
Thesis: "Distributed Control of Robotic Networks"

M.S.E., Electrical & Systems Engineering (May 2005)
University of Pennsylvania, Philadelphia, PA

Diploma (M.S.E.), Mechanical Engineering (Nov. 2002)
National Technical University of Athens, Athens, Greece
Thesis: "Decentralized Motion Control of Multiple Mobile Agents"

RESEARCH EMPLOYMENT

Postdoctoral Researcher (Aug. 2008 - Dec. 2009)
University of Pennsylvania, Philadelphia, PA
GRASP Laboratory, Dept. of Electrical & Systems Engineering

Research Assistant (Sep. 2003 - Aug. 2008)
University of Pennsylvania, Philadelphia, PA
GRASP Laboratory, Dept. of Electrical & Systems Engineering

Research Assistant (Nov. 2001 - Jul. 2003)
National Technical University of Athens, Athens, Greece
CSL Laboratory, Dept. of Mechanical Engineering

HONORS & AWARDS

1. **Bass Professorship** for excellence in research and teaching, Duke University, 2018-2023.
2. **Finalist, Best Multi-Robot Systems Paper Award**, 2017 IEEE International Conference on Robotics and Automation, Singapore, 2017.
3. **NAE US Frontiers of Engineering Symposium** participant, 2016.
4. **Best Student Paper Award**, 2nd IEEE Global Conference on Signal and Information Processing, Atlanta, GA, 2014 (as advisor).
5. **ONR Young Investigator Program Award**, Office of Naval Research (ONR), 2014.
6. **Provost Award** in recognition of outstanding achievements in research and scholarship, Stevens Institute of Technology, 2011.
7. **NSF Faculty Early Career Development (CAREER) Award**, National Science Foundation (NSF), 2011.
8. **Finalist, Best Student Paper Award**, 45th IEEE Conference on Decision and Control, San Diego, CA, 2006 (as student).
9. **Award of Academic Excellence in Engineering Sciences**, Technical Chamber of Greece, 2002.

RESEARCH GROUP

Postdoctoral Fellows

1. Davood Hajinezhad (Jan. 2018 - present)
   Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC.
2. Meng Guo (Mar. 2016 - Feb. 2017)
   Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC, Now: Research scientist, Bosch, Stuttgart, Germany.
3. Wann-Jiun Ma (Aug. 2015 - May 2017)
   Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC, Now: Fraud Data Scientist, Citicorp Credit Services Inc., Wilmington, DE.
4. Soomin Lee (Sep. 2014 - Jul. 2016)
   Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC, Now: Research Scientist, Yahoo, Sunnyvale, CA.

Doctoral Advisees

1. Kavinayan Sivakumar (starting Sep. 2018)
   Dept. of Electrical & Computer Engineering, Duke University, Durham, NC.
2. Xusheng Luo (Sep. 2017 - present)
   Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC.
3. Yan Zhang (Sep. 2016 - present)
   Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC.
4. William Lucas Calkins (Sep. 2015 - present)
   Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC.
5. Reza Khodayi-mehr (Jan. 2014 - present)
   Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC.
6. Yiannis Kantaros (Sep. 2013 - May 2018)
   Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC, Thesis: "Distributed Intermittent Connectivity Control of Mobile Robot Networks", **2017-2018 Outstanding Dissertation Award** in Mechanical Engineering & Materials Science, Now: Postdoctoral Fellow, University of Pennsylvania, Philadelphia, PA.
7. Charles Freundlich (Sep. 2013 - Dec. 2016)
   Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC, Thesis: "Decentralized State Estimation using Robotic Sensor Networks", Now: Sr. Manager, Supply Chain Automation, Tesla Motors, Palo Alto, CA.
8. Nikolaos Chatzipanagiotis (Sep. 2010 - Aug. 2015)
   Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC, Thesis: "Distributed Optimization Algorithms for Networked Systems", **2015-2016 Outstanding Dissertation Award** in Mechanical Engineering & Materials Science, Now: Research Scientist, Amazon Inc., Seattle, WA.

Masters Advisees

1. Chenxi Li (starting Sep. 2018)
   Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC.
2. Haozhe Wang (starting Sep. 2018)
   Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC.
3. Kevin Rosenthal (starting Sep. 2018)
   Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC.
4. Dongyao Lei (starting Sep. 2018)
   Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC.
5. Yuankai Zhu (Sep. 2017 - May 2018)
   Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC, Project: "Incremental Sampling-Based Motion Planning For Underwater Robots".
6. Yihui Feng (Sep. 2017 - May 2018)
   Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC, Project: "In Situ Measurement of Surface Impedance with a Ground Robot".
7. Fangyan Shen (Sep. 2017 - May 2018)
   Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC, Project: "Localization and Mapping for Quadcopter Robots in GPS-Denied Environments".
8. Litao Qiu (Sep. 2017 - May 2018)
   Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC, Project: "Next-Best-View Path Planning using Mobile Robot Sensors".

9. Qitong Gao (Sep. 2017 - May 2018)
   Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC, Thesis: "Deep Reinforcement Learning with Temporal Logic Specifications".
10. Zhaoyun Xiong (Jan. 2017 - May 2018)
    Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC, Project: "A Wi-Fi Experimental Platform for Decentralized Wireless Networking".
11. Yan Zhang (Jan. 2015 - May 2016)
    Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC, Project: "Active Landmark Localization using Mobile Stereo Vision: Experimental Validation".
12. Nithesh Reddy Nelvoy (May 2014 - May 2015)
    Dept. of Electrical & Computer Engineering, Duke University, Durham, NC, Project: "Communication Aware Motion Control of Mobile Wireless Networks: Experimental Validation".
13. Charles Freundlich (Sep. 2011 - Nov. 2012)
    Dept. of Mechanical Engineering, Stevens Institute of Technology, Hoboken, NJ, Thesis: "A Hybrid Control Approach to the Next-Best-View Problem using Stereo Vision".

Undergraduate Pratt Fellow Advisees

1. Cole Garda (Jan. 2018 - present)
   Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC.
2. Jihane Bettahi (Jan. 2017 - May 2018)
   Dept. of Electrical & Computer Engineering, Duke University, Durham, NC.
3. Chanwook Oh (Jan. 2016 - May 2017)
   Dept. of Electrical & Computer Engineering, Duke University, Durham, NC.
4. Yang Liu (Jan. 2016 - May 2017)
   Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC.
5. Tayyab Wasim (Jan. 2015 - May 2016)
   Dept. of Electrical & Computer Engineering, Duke University, Durham, NC.
6. Tosin Omofoye (Jan. 2015 - May 2016)
   Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC.
7. Negatu Asmamaw (Jan. 2014 - May 2015)
   Dept. of Electrical & Computer Engineering, Duke University, Durham, NC.
8. Kevin Nikolaus (Jan. 2014 - May 2015)
   Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC.
9. Alex Zhu (Jan. 2013 - May 2014)
   Dept. of Electrical & Computer Engineering, Duke University, Durham, NC.
10. Challen Herzberg-Brovold (Jan. 2013 - May 2014)
    Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC.

Undergraduate Independent Study Advisees

1. Andres Felipe Lebbos Habchi (starting Sep. 2018)
   Dept. of Electrical & Computer Engineering, Duke University, Durham, NC.
2. Thomas Monson (Jan. 2017 - May 2018)
   Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC.
3. Nikhil Vanderklaauw (Sep. 2017 - May 2018)
   Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC.
4. David Laub (Sep. 2017 - May 2018)
   Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC.

5. Parker Hao (Jun. 2016 - Jul. 2016)
   Dept. of Electrical & Computer Engineering, Duke University, Durham, NC.
6. Anna Miyajima (Jan. 2016 - Dec. 2016)
   Dept. of Computer Science Science, Duke University, Durham, NC.
7. Visrut Sudhakar (Jan. 2016 - May 2017)
   Dept. of Computer Science, UNC, Chapel Hill, NC.
8. Addison Howenstine (Jan. 2016 - May 2017)
   Dept. of Electrical & Computer Engineering, Duke University, Durham, NC.
9. Vincent Fry (Sep. 2015 - May 2016)
   Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC.
10. Qian Wang (Jan. 2015 - May 2016)
    Dept. of Electrical & Computer Engineering, Duke University, Durham, NC.
11. Alexander Ching (Jan. 2015 - May 2016)
    Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC.
12. Nicholas Albertson (Jan. 2013 - Aug. 2014)
    Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC.
13. Davis Bolster (Jan. 2013 - May 2014)
    Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC.

Visiting Students

1. Miguel Aranda (May 2013 - Sep. 2013), Ph.D. Visiting Student, Instituto de Investigación en Ingeniería de Aragón, Universidad de Zaragoza, Spain.
2. Gregory Fricke (Sep. 2012 - Dec. 2013), Ph.D. Visiting Student, Dept. of Mechanical Engineering & Materials Science, Duke University.

PUBLICATIONS

Journal Articles Accepted or Under Review

J38. Y. Zhang and M. M. Zavlanos, "Augmented Lagrangian Optimization under Fixed Point Arithmetic," *Automatica*, under review.

J37. R. Khodayi-mehr, Y. Kantaros, and M. M. Zavlanos, "Distributed State Estimation using Intermittently Connected Robot Networks," *IEEE Transactions on Robotics*, under review.

J36. Y. Kantaros, B. Johnson, S. Chowdhury, D. J. Cappelleri, and M. M. Zavlanos, "Control of Magnetic Microrobot Teams for Temporal Micromanipulation Tasks," *IEEE Transactions on Robotics*, under review.

J35. R. Khodayi-mehr, W. Aquino, and M. M. Zavlanos, "Model-Based Active Source Identification in Complex Environments," *IEEE Transactions on Robotics*, under review.

J34. S. Lee and M. M. Zavlanos, "On the Sublinear Regret of Distributed Primal-Dual Algorithms for Online Constrained Optimization," *IEEE Transactions on Automatic Control*, under review.

J33. Y. Kantaros, M. Guo, and M. M. Zavlanos, "Temporal Logic Task Planning and Intermittent Connectivity Control of Mobile Robot Networks," *IEEE Transactions on Automatic Control*, accepted.

J32. Y. Kantaros and M. M. Zavlanos, "Sampling-Based Optimal Control Synthesis for Multi-Robot Systems under Global Temporal Tasks," *IEEE Transactions on Automatic Control*, accepted.

Refereed Journal Publications

J31. M. Guo and M. M. Zavlanos, "Multi-Robot Data Gathering under Buffer Constraints and Intermittent Communication," *IEEE Transactions on Robotics*, vol. PP, no. 99, pp. 1-1, May 2018, DOI: 10.1109/TRO.2018.2830370.

J30. S. Lee, N. Chatzipanagiotis, and M. M. Zavlanos, "Complexity Certification of a Distributed Augmented Lagrangian Method," *IEEE Transactions on Automatic Control*, vol. 63, no. 3, pp. 827-834, Mar. 2018.

J29. C. Freundlich, S. Lee, and M. M. Zavlanos, "Distributed Active State Estimation with User-Specified Accuracy," *IEEE Transactions on Automatic Control*, vol. 63, no. 2, pp. 418-433, Feb. 2018.

J28. M. Guo and M. M. Zavlanos, "Probabilistic Motion Planning under Temporal Tasks and Soft Constraints," *IEEE Transactions on Automatic Control*, vol. PP, no. 99, pp. 1-1, Jan. 2018, DOI: 10.1109/TAC.2018.2799561.

J27. W.-J. Ma, C. Oh, Y. Liu, D. Dentcheva, and M. M. Zavlanos, "Risk-Averse Access Point Selection in Wireless Communication Networks," *IEEE Transactions on Control of Network Systems*, vol. PP, no. 99, pp. 1-1, Jan. 2018, DOI: 10.1109/TCNS.2018.2792309.

J26. C. Freundlich, Y. Zhang, and M. M. Zavlanos, "Distributed Hierarchical Control for State Estimation with Robotic Sensor Networks," *IEEE Transactions on Control of Network Systems*, vol. PP, no. 99, pp. 1-1, Dec. 2017, DOI: 10.1109/TCNS.2017.2782481.

J25. S. Lee and M. M. Zavlanos, "Approximate Projection Methods for Decentralized Optimization with Functional Constraints," *IEEE Transactions on Automatic Control*, vol. PP, no. 99, pp. 1-1, Nov. 2017, DOI: 10.1109/TAC.2017.2778696.

J24. C. Freundlich, Y. Zhang, A. Zhu, P. Mordohai, and M. M. Zavlanos, "Controlling a Robotic Stereo Camera under Image Quantization Noise," *International Journal of Robotics Research*, vol. 36, no. 12, pp. 1268-1285, Oct. 2017.

J23. N. Chatzipanagiotis and M. M. Zavlanos, "On the Convergence of a Distributed Augmented Lagrangian Method for Non-Convex Optimization," *IEEE Transactions on Automatic Control*, vol. 62, no. 9, pp. 4405-4420, Sep. 2017.

J22. V. M. Preciado and M. M. Zavlanos, "Distributed Network Design for Laplacian Eigenvalue Placement," *IEEE Transactions on Control of Network Systems*, vol. 4, no. 3, pp. 598-609, Sep. 2017.

J21. Y. Kantaros and M. M. Zavlanos, "Distributed Intermittent Connectivity Control of Mobile Robot Networks," *IEEE Transactions on Automatic Control*, vol. 62, no. 7, pp. 3109-3121, Jul. 2017.

J20. N. Chatzipanagiotis and M. M. Zavlanos, "Distributed Scheduling of Network Connectivity using Mobile Access Point Robots," *IEEE Transactions on Robotics*, vol. 32, no. 6, pp. 1333-1346, Dec. 2016.

J19. M. Aranda, G. López-Nicolás, C. Sagüés, and M. M. Zavlanos, "Distributed Formation Stabilization using Relative Position Measurements in Local Coordinates," *IEEE Transactions on Automatic Control*, vol. 61, no. 12, pp. 3925-3935, Dec. 2016.

J18. Y. Kantaros and M. M. Zavlanos, "Global Planning and Communication Control for Multi-Robot Networks in Complex Environments," *IEEE Transactions on Robotics*, vol. 32, no. 5, pp. 1045-1061, Oct. 2016.

J17. N. Chatzipanagiotis and M. M. Zavlanos, "A Distributed Algorithm for Convex Constrained Optimization under Noise," *IEEE Transactions on Automatic Control*, vol. 61, no. 9, pp. 2496-2511, Sep. 2016.

J16. Y. Kantaros and M. M. Zavlanos, "Distributed Communication-Aware Coverage Control by Mobile Sensor Networks," *Automatica*, vol. 63, pp. 209-220, Jan. 2016.

J15. N. Chatzipanagiotis, D. Dentcheva, and M. M. Zavlanos, "An Augmented Lagrangian Method for Distributed Optimization," *Mathematical Programming*, vol. 152, no. 1-2, pp. 405-434, Aug. 2015.

J14. M. Aranda, G. López-Nicolás, C. Sagüés, and M. M. Zavlanos, "Coordinate-Free Formation Stabilization Based on Relative Position Measurements," *Automatica*, vol. 57, pp. 11-20, Jul. 2015.

J13. N. Chatzipanagiotis, Y. Liu, A. P. Petropulu, and M. M. Zavlanos, "Distributed Cooperative Beamforming in Multi-Source Multi-Destination Clustered Systems," *IEEE Transactions on Signal Processing*, vol. 62, no. 23, pp. 6105-6117, Dec. 2014.

J12. D. Cappelleri, D. Efthymiou, A. Goswami, N. Vitoroulis, and M. M. Zavlanos, "Towards Mobile Microrobot Swarms for Additive Micromanufacturing," *International Journal of Advanced Robotic Systems*, vol. 11, no. 150, pp. 1-14, Sep. 2014.

J11. M. Guo, M. M. Zavlanos, and D. V. Dimarogonas, "Controlling the Relative Agent Motion in Multi-Agent Formation Stabilization," *IEEE Transactions on Automatic Control*, vol. 59, no. 3, pp. 820-826, Mar. 2014.

J10. M. M. Zavlanos, A. Ribeiro, and G. J. Pappas, "Network Integrity in Mobile Robotic Networks," *IEEE Transactions on Automatic Control*, vol. 58, no. 1, pp. 3-18, Jan. 2013.

J9. M. M. Zavlanos, M. B. Egerstedt, and G. J. Pappas, "Graph Theoretic Connectivity Control of Mobile Robot Networks," *Proceedings of the IEEE*, vol. 99, no. 9, pp. 1525-1540, Sep. 2011, Special Issue on Swarming in Natural and Engineered Systems.

J8. M. M. Zavlanos, A. A. Julius, S. P. Boyd, and G. J. Pappas, "Inferring Stable Genetic Networks from Steady-State Data," *Automatica*, vol. 47, no. 6, pp. 1113-1122, Jun. 2011, Special Issue on Systems Biology.

J7. M. M. Zavlanos, H. G. Tanner, A. Jadbabaie, and G. J. Pappas, "Hybrid Control for Connectivity Preserving Flocking." *IEEE Transactions on Automatic Control*, vol. 54, no. 12, pp. 2869-2875, Dec. 2009.

J6. A. A. Julius, M. M. Zavlanos, S. P. Boyd, and G. J. Pappas, "Genetic Network Identification using Convex Programming," *IET Systems Biology*, vol. 3, no. 3, pp. 155-166, May 2009.

J5. M. M. Zavlanos and G. J. Pappas, "Distributed Connectivity Control of Mobile Networks," *IEEE Transactions on Robotics*, vol. 24, no. 6, pp. 1416-1428, Dec. 2008.

J4. M. M. Zavlanos and G. J. Pappas, "A Dynamical Systems Approach to Weighted Graph Matching," *Automatica*, vol. 44, no. 11, pp. 2817-2824, Nov. 2008.

J3. M. M. Zavlanos and G. J. Pappas, "Dynamic Assignment in Distributed Motion Planning with Local Coordination," *IEEE Transactions on Robotics*, vol. 24, no. 1, pp. 232-242, Feb. 2008.

J2. M. M. Zavlanos and G. J. Pappas, "Potential Fields for Maintaining Connectivity of Mobile Networks," *IEEE Transactions on Robotics*, vol. 23, no. 4, pp. 812-816, Aug. 2007.

J1. D. V. Dimarogonas, S. G. Loizou, K. J. Kyriakopoulos, and M. M. Zavlanos, "A Feedback Stabilization and Collision Avoidance Scheme for Multiple Independent Non-Point Agents," *Automatica*, vol. 42, no. 2, pp. 229-243, Feb. 2006.

Conference Articles Accepted or Under Review

C60. Y. Zhang and M. M. Zavlanos, "A Consensus-Based Distributed Augmented Lagrangian Method," *57th IEEE Conference on Decision and Control*, Miami Beach, FL, December 2018, submitted.

C59. Y. Feng, R. Khodayi-mehr, Y. Kantaros, L. Calkins, and M. M. Zavlanos, "Active Acoustic Impedance Mapping using Mobile Robots," *57th IEEE Conference on Decision and Control*, Miami Beach, FL, December 2018, submitted.

C58. L. Calkins, R. Khodayi-mehr, W. Aquino, and M. M. Zavlanos, "Physics-Based Acoustic Source Identification," *57th IEEE Conference on Decision and Control*, Miami Beach, FL, December 2018, submitted.

C57. D. Hajinezhad and M. M. Zavlanos, "Gradient-Free Multi-Agent Nonconvex Nonsmooth Optimization," *57th IEEE Conference on Decision and Control*, Miami Beach, FL, December 2018, submitted.

C56. Y. Kantaros and M. M. Zavlanos, "Temporal Logic Optimal Control for Large-Scale Multi-Robot Systems: 10^{400} States and Beyond," *57th IEEE Conference on Decision and Control*, Miami Beach, FL, December 2018, submitted.

C55. Q. Gao, Y. Kantaros, and M. M. Zavlanos, "Deep Reinforcement Learning with Temporal Logic Specifications," *57th IEEE Conference on Decision and Control*, Miami Beach, FL, December 2018, submitted.

C54. D. Hajinezhad and M. M. Zavlanos, "A Nonlinear Stochastic Variance-Reduced Algorithm for Temporal-Difference Learning," *57th IEEE Conference on Decision and Control*, Miami Beach, FL, December 2018, submitted.

Refereed Conference Proceedings

C53. R. Khodayi-mehr, W. Aquino, and M. M. Zavlanos, "Distributed Reduced Order Source Identification," in *Proc. 2018 American Control Conference*, Milwaukee, WI, Jun. 2018, pp. 1084-1089.

C52. Y. Kantaros and M. M. Zavlanos, "Distributed Intermittent Communication Control of Mobile Robot Networks under Time-Critical Dynamic Tasks," in *Proc. 2018 IEEE International Conference on Robotics and Automation*, Brisbane, Australia, May 2018, pp. 5028-5033.

C51. Y. Kantaros and M. M. Zavlanos, "Distributed Optimal Control Synthesis for Multi-Robot Systems under Global Temporal Tasks," in *Proc. 9th ACM/IEEE International Conference on Cyber-Physical Systems*, Porto, Portugal, Apr. 2018, pp. 162-173.

C50. M. Guo and M. M. Zavlanos, "Temporal Task Planning in Wirelessly Connected Environments with Unknown Channel Quality," in *Proc. 56th IEEE Conference on Decision and Control*, Melbourne, Australia, Dec. 2017, pp. 4161-4168.

C49. S. Lee, N. Chatzipanagiotis, and M. M. Zavlanos, "A Distributed Augmented Lagrangian Method for Model Predictive Control," in *Proc. 56th IEEE Conference on Decision and Control*, Melbourne, Australia, Dec. 2017, pp. 2888-2893.

C48. L. Calkins, R. Khodayi-mehr, W. Aquino, and M. M. Zavlanos, "Stochastic Model-Based Source Identification," in *Proc. 56th IEEE Conference on Decision and Control*, Melbourne, Australia, Dec. 2017, pp. 1272-1277.

C47. W.-J. Ma, D. Dentcheva, and M. M. Zavlanos, "Risk-Averse Sensor Planning using Distributed Policy Gradient," in *Proc. 2017 American Control Conference*, Seattle, WA, May 2017, pp. 4839-4844.

C46. M. Guo and M. M. Zavlanos, "Distributed Data Gathering with Buffer Constraints and Intermittent Communication," in *Proc. 2017 IEEE International Conference on Robotics and Automation*, Singapore, May 2017, pp. 279-284. **Finalist, Best Multi-Robot Systems Paper Award**

C45. Y. Kantaros and M. M. Zavlanos, "Sampling-Based Control Synthesis for Multi-Robot Systems under Global Temporal Specifications," in *Proc. 8th ACM/IEEE International Conference on Cyber-Physical Systems*, Pittsburgh, PA, Apr. 2017, pp. 3-13.

C44. C. Freundlich, S. Lee, and M. M. Zavlanos, "Distributed Estimation and Control for Mobile Robot Networks," in *Proc. 55th IEEE Conference on Decision and Control*, Las Vegas, NV, Dec. 2016, pp. 3518-3523.

C43. Y. Kantaros and M. M. Zavlanos, "Simultaneous Intermittent Communication Control and Path Optimization in Networks of Mobile Robots," in *Proc. 55th IEEE Conference on Decision and Control*, Las Vegas, NV, Dec. 2016, pp. 1794-1799.

C42. S. Lee, A. Ribeiro, and M. M. Zavlanos, "Distributed Continuous-time Online Optimization using Saddle-Point Methods," in *Proc. 55th IEEE Conference on Decision and Control*, Las Vegas, NV, Dec. 2016, pp. 4314-4319.

C41. S. Lee and M. M. Zavlanos, "Approximate Projections for Decentralized Optimization with SDP Constraints," in *Proc. 55th IEEE Conference on Decision and Control*, Las Vegas, NV, Dec. 2016, pp. 1030-1035.

C40. Y. Kantaros and M. M. Zavlanos, "A Distributed LTL-based Approach for Intermittent Communication in Mobile Robot Networks," in *Proc. 2016 American Control Conference*, Boston, MA, Jul. 2016, pp. 5557-5562.

C39. R. Khodayi-mehr, W. Aquino, and M. M. Zavlanos, "Nonlinear Reduced Order Source Identification," in *Proc. 2016 American Control Conference*, Boston, MA, Jul. 2016, pp. 6302-6307.

C38. S. Lee and M. M. Zavlanos, "Distributed Primal-Dual Methods for Online Constrained Optimization," in *Proc. 2016 American Control Conference*, Boston, MA, Jul. 2016, pp. 7171-7176.

C37. Y. Kantaros and M. M. Zavlanos, "Intermittent Connectivity Control in Mobile Robot Networks," in *Proc. 49th Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, Nov. 2015, pp. 1125-1129.

C36. N. Chatzipanagiotis and M. M. Zavlanos, "On the Convergence Rate of a Distributed Augmented Lagrangian Optimization Algorithm," in *Proc. 2015 American Control Conference*, Chicago, IL, Jul. 2015, pp. 541-546.

C35. C. Freundlich, P. Mordohai, and M. M. Zavlanos, "Optimal Path Planning and Resource Allocation for Active Target Localization," in *Proc. 2015 American Control Conference*, Chicago, IL, Jul. 2015, pp. 3088-3093.

C34. R. Khodayi-mehr, W. Aquino, and M. M. Zavlanos, "Model-Based Sparse Source Identification," in *Proc. 2015 American Control Conference*, Chicago, IL, Jul. 2015, pp. 1818-1823.

C33. C. Freundlich, P. Mordohai, and M. M. Zavlanos, "Exact Bias Correction and Covariance Estimation for Stereo Vision," in *Proc. IEEE Conference on Computer Vision and Pattern Recognition*, Boston, MA, Jun. 2015, pp. 3296-3304.

C32. Y. Kantaros and M. M. Zavlanos, "Communication-Aware Coverage Control for Robotic Sensor Networks," in *Proc. 53rd IEEE Conference on Decision and Control*, Los Angeles, CA, Dec. 2014, pp. 6863-6865.

C31. Y. Kantaros and M. M. Zavlanos, "Distributed Simultaneous Coverage and Communication Control by Mobile Sensor Networks," in *Proc. 2nd IEEE Global Conference on Signal and Information Processing*, Atlanta, GA, Dec. 2014, pp. 1001-1005. **Best Student Paper Award**

C30. M. Aranda, G. López-Nicolás, C. Sagüés, and M. M. Zavlanos, "Three-Dimensional Multirobot Formation Control for Target Enclosing," in *Proc. 2014 IEEE/RSJ International Conference on Intelligent Robots and Systems*, Chicago, IL, Sep. 2014, pp. 357-362.

C29. N. Chatzipanagiotis and M. M. Zavlanos, "Distributed Stochastic Multicommodity Flow Optimization," in *Proc. 1st IEEE Global Conference on Signal and Information Processing*, Austin, TX, Dec. 2013, pp. 883-886.

C28. C. Freundlich, P. Mordohai, and M. M. Zavlanos, "Hybrid Control for Mobile Target Localization with Stereo Vision," in *Proc. 52nd IEEE Conference on Decision and Control*, Firenze, Italy, Dec. 2013, pp. 2635-2640.

C27. N. Chatzipanagiotis, A. P. Petropulu, and M. M. Zavlanos, "A Distributed Algorithm for Cooperative Relay Beamforming," in *Proc. 2013 American Control Conference*, Washington, DC, Jun. 2013, pp. 3733-3738.

C26. D. S. Kalogerias, N. Chatzipanagiotis, M. M. Zavlanos, and A. P. Petropulu, "Mobile Jammers for Secrecy Rate Maximization in Cooperative Networks," in *Proc. 38th International Conference on Acoustics, Speech, and Signal Processing*, Vancouver, Canada, May 2013, pp. 2901-2905.

C25. C. Freundlich, P. Mordohai, and M. M. Zavlanos, "A Hybrid Control Approach to the Next-Best-View Problem using Stereo Vision," in *Proc. 2013 IEEE International Conference on Robotics and Automation*, Karlsruhe, Germany, May 2013, pp. 4478-4483.

C24. N. Chatzipanagiotis, D. Dentcheva, and M. M. Zavlanos, "Approximate Augmented Lagrangians for Distributed Network Optimization," in *Proc. 51st IEEE Conference on Decision and Control*, Maui, Hawaii, Dec. 2012, pp. 5840-5845.

C23. N. Chatzipanagiotis, Y. Liu, A. P. Petropulu, and M. M. Zavlanos, "Controlling Groups of Mobile Beamformers," in *Proc. 51st IEEE Conference on Decision and Control*, Maui, Hawaii, Dec. 2012, pp. 1984-1989.

C22. M. M. Zavlanos, A. Ribeiro, and G. J. Pappas, "A Framework for Integrating Mobility and Routing in Mobile Communication Networks," in *Proc. 45th Asilomar Conference on Signals, Systems, and Computers*, Pacific Grove, CA, Nov. 2011, pp. 1461-1465.

C21. M. M. Zavlanos, A. Ribeiro, and G. J. Pappas, "Distributed Control of Mobility and Routing in Networks of Robots," in *Proc. 12th IEEE International Workshop on Signal Processing Advances in Wireless Communications*, San Francisco, CA, Jun. 2011, pp. 236-240.

C20. M. M. Zavlanos, V. M. Preciado, and A. Jadbabaie, "Spectral Control of Mobile Robot Networks," in *Proc. 2011 American Control Conference*, San Francisco, CA, Jun. 2011, pp. 3245-3250.

C19. M. M. Zavlanos and A. A. Julius, "Robust Flux Balance Analysis of Metabolic Networks," in *Proc. 2011 American Control Conference*, San Francisco, CA, Jun. 2011, pp. 2915-2920.

C18. M. M. Zavlanos, A. Ribeiro, and G. J. Pappas, "Mobility and Routing Control in Networks of Robots," in *Proc. 49th IEEE Conference on Decision and Control*, Atlanta, GA, Dec. 2010, pp. 7545-7550.

C17. M. M. Zavlanos, "Synchronous Rendezvous of Very-Low-Range Wireless Agents," in *Proc. 49th IEEE Conference on Decision and Control*, Atlanta, GA, Dec. 2010, pp. 4740-4745.

C16. V. M. Preciado, M. M. Zavlanos, A. Jadbabaie, and G. J. Pappas, "Distributed Control of the Laplacian Spectral Moments of a Network," in *Proc. 2010 American Control Conference*, Baltimore, MD, Jun. 2010, pp. 4462-4467.

C15. J. Le Ny, M. M. Zavlanos, and G. J. Pappas, "Resource Allocation for Signal Detection with Active Sensors," in *Proc. 48th IEEE Conference on Decision and Control*, Shanghai, China, Dec. 2009, pp. 8561-8566.

C14. M. M. Zavlanos, D. E. Koditschek, and G. J. Pappas, "A Distributed Dynamical Scheme for Fastest Mixing Markov Chains," in *Proc. 2009 American Control Conference*, St. Louis, MO, Jun. 2009, pp. 1436-1441.

C13. M. M. Zavlanos, L. Spesivtsev, and G. J. Pappas, "A Distributed Auction Algorithm for the Assignment Problem," in *Proc. 47th IEEE Conference on Decision and Control*, Cancun, Mexico, Dec. 2008, pp. 1212-1217.

C12. M. M. Zavlanos, A. A. Julius, S. P. Boyd, and G. J. Pappas, "Identification of Stable Genetic Networks using Convex Programming," in *Proc. 2008 American Control Conference*, Seattle, WA, Jun. 2008, pp. 2755-2760.

C11. M. M. Zavlanos, A. Tahbaz-Salehi, A. Jadbabaie, and G. J. Pappas, "Distributed Topology Control of Dynamic Networks," in *Proc. 2008 American Control Conference*, Seattle, WA, Jun. 2008, pp. 2660-2665.

C10. N. Michael, M. M. Zavlanos, V. Kumar, and G. J. Pappas, "Distributed Multi-Robot Task Assignment and Formation Control," in *Proc. 2008 IEEE International Conference on Robotics and Automation*, Pasadena, CA, May 2008, pp. 128-133.

C9. M. M. Zavlanos and G. J. Pappas, "Distributed Connectivity Control of Mobile Networks," in *Proc. 46th IEEE Conference on Decision and Control*, New Orleans, LA, Dec. 2007, pp. 3591-3596.

C8. M. M. Zavlanos and G. J. Pappas, "Distributed Formation Control with Permutation Symmetries," in *Proc. 46th IEEE Conference on Decision and Control*, New Orleans, LA, Dec. 2007, pp. 2894-2899.

C7. M. M. Zavlanos, A. Jadbabaie, and G. J. Pappas, "Flocking while Preserving Network Connectivity," in *Proc. 46th IEEE Conference on Decision and Control*, New Orleans, LA, Dec. 2007, pp. 2919-2924.

C6. M. M. Zavlanos and G. J. Pappas, "Dynamic Assignment in Distributed Motion Planning with Limited Information," in *Proc. 2007 American Control Conference*, New York, NY, Jul. 2007, pp. 1173-1178.

C5. M. M. Zavlanos and G. J. Pappas, "Sensor-Based Dynamic Assignment in Distributed Motion Planning," in *Proc. 2007 IEEE International Conference on Robotics and Automation*, Rome, Italy, Apr. 2007, pp. 3333-3338.

C4. M. M. Zavlanos and G. J. Pappas, "A Dynamical Systems Approach to Weighted Graph Matching," in *Proc. 45th IEEE Conference on Decision and Control*, San Diego, CA, Dec. 2006, pp. 3492-3497. **Finalist, Best Student Paper Award**

C3. M. M. Zavlanos and G. J. Pappas, "Controlling Connectivity of Dynamic Graphs," in *Proc. 44th IEEE Conference on Decision and Control*, Seville, Spain, Dec. 2005, pp. 6388-6393.

C2. D. V. Dimarogonas, M. M. Zavlanos, S. G. Loizou, and K. J. Kyriakopoulos, "Decentralized Motion Control of Multiple Holonomic Agents under Input Constraints," in *Proc. 42nd IEEE Conference on Decision and Control*, Maui, Hawaii, Dec. 2003, pp. 3390-3395.

C1. M. M. Zavlanos and K. J. Kyriakopoulos, "Decentralized Motion Control of Multiple Mobile Agents," in *Proc. 11th Mediterranean Conference on Control and Automation*, Rhodes, Greece, 2003.

Refereed Book Chapters

B3. M. M. Zavlanos and G. J. Pappas, "Connectivity of Dynamic Graphs," in *Encyclopedia of Systems and Control*, T. Samad and J. Baillieul, Eds., Springer-Verlag London, 2015, pp. 317-323.

B2. N. Michael, M. M. Zavlanos, V. Kumar and G. J. Pappas, "Maintaining Connectivity in Mobile Robot Networks," in *Experimental Robotics*, ser. Springer Tracts in Advanced Robotics, O. Khatib, V. Kumar, and G. J. Pappas, Eds., Springer Berlin Heidelberg, 2009, vol. 54, pp. 117-126.

B1. M. M. Zavlanos and G. J. Pappas, "Distributed Hybrid Control for Multiple Pursuer Multiple Evader Games," in *Hybrid Systems: Computation and Control*, ser. Lecture Notes in Computer Science, A. Bemporad, A. Bicchi, and G. Buttazzo, Eds., Springer Berlin Heidelberg, 2007, vol. 4416, pp. 787-789.

Published Conference and Workshop Abstracts

A3. C. Freundlich, P. Mordohai, and M. M. Zavlanos, "A Hybrid Control Approach to the Next-Best-View Problem using Stereo Vision," in *16th International Conference on Hybrid Systems: Computation and Control*, Philadelphia, PA, Apr. 2013.

A2. G. Foderaro, S. Ferrari, and M. M. Zavlanos, "A Decentralized Kernel Density Estimation Approach to Distributed Robot Path Planning," in *26th Annual Conference on Neural Information Processing Systems*, Workshop on Bayesian Nonparametric Models for Reliable Planning and Decision-Making Under Uncertainty, Lake Tahoe, NV, Dec. 2012.

A1. A. A. Julius, M. M. Zavlanos, S. P. Boyd, and G. J. Pappas, "Genetic Network Identification using Convex Programming," in *8th International Conference on Systems Biology*, Los Angeles, CA, Oct. 2007.

Theses and Dissertations

Th2. M. M. Zavlanos, "Distributed Control of Robotic Networks," Ph.D. dissertation, University of Pennsylvania, Dept. of Electrical & Systems Engineering, Aug. 2008.

Th1. M. M. Zavlanos, "Decentralized Motion Control of Multiple Mobile Agents," Diploma (M.S.E.) thesis, National Technical University of Athens, Dept. of Mechanical Engineering, Nov. 2002.

Technical Reports

T4. P. C. Hammer, D. J. Cappelleri, and M. M. Zavlanos, "TortoiseBot: Low-cost ROS-Based Mobile 3D Mapping Platform," Technical Report No. TR2-DC, Dept. of Mechanical Engineering, Stevens Institute of Technology, Feb. 2012.

T3. A. A. Julius, M. M. Zavlanos, S. P. Boyd, and G. J. Pappas, "Genetic Network Identification using Convex Programming," Technical Report MS-CIS-07-20, Dept. of Computer & Information Science, University of Pennsylvania, Jul. 2007.

T2. M. M. Zavlanos and G. J. Pappas, "Distributed Connectivity Control of Mobile Networks," Technical Report MS-CIS-07-08, Dept. of Computer & Information Science, University of Pennsylvania, Mar. 2007.

T1. D. V. Dimarogonas, S. G. Loizou, K. J. Kyriakopoulos, and M. M. Zavlanos, "A Feedback Stabilization and Collision Avoidance Scheme for Multiple Independent Non-Point Agents," Technical Report No. 01-04, Control Systems Lab, Dept. of Mechanical Engineering, National Technical University of Athens, 2004.

INVITED LECTURES, SEMINARS, COLLOQUIA

1. *Workshop on Large-Scale Optimization*, "Distributed Optimization Algorithms for Networked Systems", Allerton Conference on Communication, Control and Computing, Allerton Park, Monticello, IL, Oct. 2017.
2. *DIMACS Workshop on Distributed Optimization, Information Processing, and Learning*, "Distributed Optimization Algorithms for Networked Systems", Rutgers University, Piscataway, NJ, Aug. 2017.
3. *Workshop on Optimization under Uncertainty and Data-Driven Science and Engineering*, "Distributed Optimization Algorithms for Networked Systems", Duke University, Durham, NC, Apr. 2017.
4. *Workshop on Assured Autonomy*, "Intermittent Communication Control in Mobile Robot Networks", Florida Institute on National Security (FINS), University of Florida, Gainesville, FL, Apr. 2017.

5. *Dream Course Seminar*, "Distributed Estimation and Control in Mobile Robot Networks", University of Oklahoma, Norman, OK, Feb. 2017.
6. *Control Systems Seminar*, "Intermittent Communication Control in Mobile Robot Networks", University of Michigan, Ann Arbor, MI, Jan. 2017.
7. *Workshop on Taxonomies of Interconnected Systems: Large-Scale Networks*, "Distributed Optimization Algorithms for Networked Systems", IEEE Conference on Decision and Control, Las Vegas, NV, Dec. 2016.
8. *Workshop on Communication-Aware Control and Robotics*, "Intermittent Communication Control in Mobile Robot Networks", IEEE Conference on Decision and Control, Las Vegas, NV, Dec. 2016.
9. *CISE Seminar*, "Intermittent Communication Control in Mobile Robot Networks", Boston University, Boston, MA, Oct. 2016.
10. *CS Colloquia*, "Distributed Estimation and Control in Mobile Robot Networks", Duke University, Durham, NC, Oct. 2016.
11. *DRIVE Seminar*, "Distributed Communication-Aware Mobile Robot Networks", Duke University, Durham, NC, Feb. 2013.
12. *DCSB Seminar*, "Analysis and Reconstruction of Biomolecular Networks", Duke University, Durham, NC, Oct. 2013.
13. *New Faculty Lecture Series*, "Networked Robot Systems: Integrating Communication, Sensing, and Control", Duke University, Durham, NC, Mar. 2013.
14. *WISeNet Seminar*, "Controlling Mobility and Communications in Networks of Mobile Robots", Duke University, Durham, NC, Mar. 2013.
15. *MEMS Seminar*, "Distributed Control of Networked Robots and Systems", Duke University, Durham, NC, Mar. 2012.
16. *ME Seminar*, "Distributed Control of Networked Robots and Systems", Worcester Polytechnic Institute, Worcester, MA, Feb. 2012.
17. *SOE Controls and Robotics Seminar*, "Distributed Control of Networked Robots and Systems", Rutgers University, Piscataway, NJ, Oct. 2011.
18. *ME Seminar*, "Distributed Control of Networked Robots and Systems", City College of New York, New York, NY, Oct. 2010.
19. *ME Seminar*, "Distributed Control of Networked Robots and Systems", University of Delaware, Newark, DE, Oct. 2010.
20. *ISIS Seminar*, "Distributed Control of Networked Robots and Systems", Vanderbilt University, Nashville, TN, Feb. 2010.
21. *CS Seminar*, "Distributed Control of Networked Robots and Systems", Stevens Institute of Technology, Hoboken, NJ, Apr. 2009.
22. *ECEE Seminar*, "Distributed Control of Networked Robots and Systems", University of Colorado at Boulder, Boulder, CO, Mar. 2009.
23. *MAE Seminar*, "Distributed Control of Networked Robots and Systems", Polytechnic Institute of New York University, Brooklyn, NY, Feb. 2009.
24. *EE Seminar*, "Distributed Control of Networked Robots and Systems", University of Texas at Dallas, Richardson, TX, Feb. 2009.
25. *MAE Seminar*, "Distributed Control of Networked Robots and Systems", Cornell University, Ithaca, NY, Mar. 2008.

UNIVERSITY ACTIVITIES

Departmental and University Committees

1. Pratt Space Committee Member (Sep. 2015 - present)
   Pratt School of Engineering, Duke University, Durham, NC
2. MEMS "Controls" Faculty Search Committee Member (Sep. 2015 - Jun. 2016)
   Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC
3. MEMS "Materials" Faculty Search Committee Member (Sep. 2014 - Jun. 2015)
   Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC
4. MEMS/ECE "Robotics" Faculty Search Committee Member (Sep. 2013 - Jun. 2014)
   Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC
5. Faculty Professional Development & Mentoring Response Team (Sep. 2012 - Aug. 2013)
   Pratt School of Engineering, Duke University, Durham, NC
6. Graduate Committee Member (Sep. 2012 - Aug. 2015)
   Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC
7. Departmental Seminar Committee Member (Sep. 2012 - Aug. 2015)
   Dept. of Mechanical Engineering & Materials Science, Duke University, Durham, NC
8. Undergraduate Committee Member (Jan. 2012 - Aug. 2012)
   Dept. of Mechanical Engineering, Stevens Institute of Technology, Hoboken, NJ
9. Graduate Committee Member (Sep. 2010 - Aug. 2012)
   Dept. of Mechanical Engineering, Stevens Institute of Technology, Hoboken, NJ

Instruction

1. *Undergraduate*
   - *ME 344/ECE 382 – Control Systems* (Spring 2014 - 2017)
     Duke University, Durham, NC
   - *ME 483 – Control Systems* (Fall 2010, 2011)
     Stevens Institute of Technology, Hoboken, NJ
2. *Graduate*
   - *ME 627/CEE 627/ECE 590 – Linear Systems Theory* (Fall 2012 - 2016, 2018)
     Duke University, Durham, NC
   - *ME 555 – Nonlinear Optimization* (Spring 2016)
     Duke University, Durham, NC
   - *ME 621 – Modern Control Engineering* (Spring 2010 - 2012)
     Stevens Institute of Technology, Hoboken, NJ
   - *ME 654 – Advanced Robotics* (Spring 2011)
     (Taught jointly with David Cappelleri)
     Stevens Institute of Technology, Hoboken, NJ
   - *MEAM 620 – Robotics* (Spring 2009)
     (Taught jointly with Maxim Likhachev, Vinutha Kallem, and Nathan Michael)
     University of Pennsylvania, Philadelphia, PA

Doctoral Thesis Committees

1. Vuk Lesi (in progress). Dept. of Electrical & Computer Engineering, Duke University, Durham, NC. Thesis: "Integrating Security in Resource-Constrained Cyber-Physical Systems" Advisor: Prof. Miroslav Pajic.
2. Weston Ross (in progress). Dept. of Mechanical Engineering and Materials Science, Duke University, Durham, NC. Thesis: "Development of a Model Predictive Controller for Volumetric Vaporization of Soft Tissue." Advisor: Prof. Patrick Codd.
3. Victoria Nneji (in progress). Dept. of Mechanical Engineering and Materials Science, Duke University, Durham, NC. Thesis: "A Model for Designing and Staffing Remote Operations Centers for Autonomous Vehicle Fleets." Advisor: Prof. Missy Cummings.
4. Adam Konneker (in progress). Dept. of Electrical & Computer Engineering, Duke University, Durham, NC. Thesis: "Online Volumetric Segmentation: Computation and Evaluation." Advisor: Prof. Kris Hauser.
5. Xu Zhang (Dec. 2016). Dept. of Mechanical Engineering and Materials Science, Duke University, Durham, NC. Thesis: "Indirect Training Algorithms for Spiking Neural Networks based on Spiking Timing Dependent Plasticity and Their Applications." Advisor: Prof. Craig Henriquez.
6. Hongchuan Wei (Jun. 2016). Dept. of Mechanical Engineering and Materials Science, Duke University, Durham, NC. Thesis: "Sensor Network Planning for Multiple Targets Learning." Advisor: Prof. Silvia Ferrari.
7. Wenjie Lu (Nov. 2014). Dept. of Mechanical Engineering and Materials Science, Duke University, Durham, NC. Thesis: "Autonomous Sensor Path Planning and Control for Active Information Gathering." Advisor: Prof. Silvia Ferrari.
8. Miao Liu (May 2014). Dept. of Electrical & Computer Engineering, Duke University, Durham, NC. Thesis: "Efficient Bayesian Nonparametric Methods for Model-Free Reinforcement Learning in Centralized and Decentralized Sequential Environments." Advisor: Prof. Lawrence Carin.
9. Yangbo Long (May 2014). Dept. of Mechanical Engineering, Stevens Institute of Technology, Hoboken, NJ. Thesis: "Design, Modeling, and Control of an Overactuated Micro Aerial Vehicle." Advisor: Prof. David Cappelleri.
10. Wenlin Zhang (Dec. 2012). Dept. of Electrical & Computer Engineering, Stevens Institute of Technology, Hoboken, NJ. Thesis: "Consensus-Based Cooperative Control with Applications to Robotic and Communication Systems." Advisor: Prof. Yi Guo.
11. Mary Schurgot (Apr. 2012). Dept. of Electrical & Computer Engineering, Stevens Institute of Technology, Hoboken, NJ. Thesis: "Multi-Objective Performance Evaluation in Wireless Ad-Hoc Networks." Advisor: Prof. Cristina Comaniciu.
12. Gabriela Martinez (Apr. 2011). Dept. of Mathematics, Stevens Institute of Technology, Hoboken, NJ. Thesis: "Stochastic Optimization Problems with Constraints on Distribution Functions." Advisor: Prof. Darinka Dentcheva.
13. Hua Wang (Jul. 2010). Dept. of Electrical & Computer Engineering, Stevens Institute of Technology, Hoboken, NJ. Thesis: "Dynamic Networked Systems: Consensus, Cooperation, and Rigidity Control." Advisor: Prof. Yi Guo.

Masters Thesis Committees

1. Ilija Jovanov (June 2018). Dept. of Electrical & Computer Engineering, Duke University, Durham, NC. Thesis: "Secure Control of Cyber-Physical Systems with Intermittent Data Authentication" Advisor: Prof. Miroslav Pajic.

2. Yunhan Wang (Mar. 2018). Dept. of Mechanical Engineering and Materials Science, Duke University, Durham, NC. Thesis: "Evaluation of an Eye Tracking Selection Technique with Progressive Refinement." Advisor: Prof. Regis Kopper.
3. Yi Zheng (Mar. 2017). Dept. of Computer Science, Duke University, Durham, NC. Thesis: "Unified Landscape of Low Rank Nonconvex Problem." Advisor: Prof. Rong Ge.
4. Weston Ross (Apr. 2016). Dept. of Mechanical Engineering and Materials Science, Duke University, Durham, NC. Thesis: "Investigating the Tradespace between Increased Automation and Optimal Manning on Aircraft Carrier Decks." Advisor: Prof. Missy Cummings.
5. Xu Zhang (Jun. 2015). Dept. of Mechanical Engineering and Materials Science, Duke University, Durham, NC. Thesis: "Indirect Training Algorithms for Spiking Neural Networks Controlled Virtual Insect Navigation." Advisor: Prof. Silvia Ferrari.

Capstone Senior Design Project Advising

1. Kristin Miller, Brian Dorsey, Sherry Zhang, Dylan Gleit, Andrew Burton (2016). Duke University, Durham, NC. Project: "Immersion Heater for Sous-Vide Style Cooking."
2. Keith Coffey, Hamza Mohamed, Steven Moss, Daniel Van Schaik (2011-2012). Stevens Institute of Technology, Hoboken, NJ. Project: "Assembly Line Product Elevator."
3. Abel Alvarez, Kyle Brisson, Eric Chirlin, Cassidy DeSchryver, Jeffrey Lichtenfeld (2010-2011). Stevens Institute of Technology, Hoboken, NJ. Project: "New Jersey Department of Transportation Pedestrian Safety."
4. Regina Pynn, Matthew Edwards, Tom Lakatos, Michael Dambakly (2010-2011). Stevens Institute of Technology, Hoboken, NJ. Project: "Remotely Pilotable Inspection Craft-Propulsion System."

Undergraduate Student Organization Advising

1. *Duke University Robotics Club*, Duke University, Durham, NC (Sep. 2012 - present)

PROFESSIONAL ACTIVITIES

Journal Editorial Boards

1. Associate Editor (Networks in Systems and Control), *Automatica* (Aug. 2015 - present)

Conference Editorial Boards

1. Associate Editor, *IEEE Control Systems Society* (Jun. 2013 - May 2018)
2. Associate Editor, *American Control Conference* (2014 - 2018)
3. Associate Editor, *IEEE Conference on Decision and Control* (2014 - 2017)
4. Associate Editor, *IEEE International Conference on Robotics and Automation* (2012, 2014, 2015)
5. Associate Editor, *IEEE Mediterranean Conference on Control and Automation* (2011 - 2013)

Technical Program Committees

1. ACM/IEEE International Conference on Cyber-Physical Systems (2016, 2017)
2. Robotics: Science and Systems (2011, 2012, 2014)

NSF Panels

1. NSF IIS Division (2013, 2014, 2018)
2. NSF CMMI Division (2013)
3. NSF CNS Division (2012, 2014, 2016)

Workshop and Invited Session Organizer

1. Co-organized (with Wilkins Aquino, Jianfeng Lu, and Drew Kouri) a workshop on *Optimization under Uncertainty and Data-Driven Science and Engineering* at Duke University, Durham, NC, Apr. 2017.
2. Co-organized (with Alejandro Ribeiro) an invited session on *Communication Management in Robot Networks* at the 2011 Asilomar Conference on Signals, Systems and Computers, Pacific Grove, CA, Nov. 2011.
3. Co-organized (with A. Agung Julius) an invited session on *Modeling and Identification of Genetic Regulatory Networks* at the 2008 American Control Conference, Seattle, WA, Jun. 2008.

Reviewer

1. *Journals:* IEEE Transactions on Automatic Control, IEEE Transactions on Robotics, International Journal of Robotics Research, SIAM Journal on Control and Optimization, Proceedings of the IEEE, Automatica, IEEE Transactions on Control of Network Systems, Robotics and Autonomous Systems, IEEE Robotics and Automation Letters, IEEE Transactions on Sensor Networks, IEEE Transactions on Cybernetics, IEEE Transactions on Control Systems Technology, International Journal of Control.
2. *Conferences:* IEEE Conference on Decision and Control (CDC), IEEE International Conference on Robotics and Automation (ICRA), American Control Conference (ACC), European Control Conference (ECC), Mediterranean Conference on Control and Automation (MED), IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), IEEE International Conference on Automation Science and Engineering (CASE), IEEE Multi-Conference on Systems and Control (MSC), IEEE International Conference on Mobile Ad hoc and Sensor Systems (MASS), Robotics: Science and Systems Conference (RSS), International Conference on Hybrid Systems: Computation and Control (HSCC), ACM/IEEE International Conference on Cyber-Physical Systems (ICCPS), IFAC World Congress.

Professional Memberships

1. *Member of ASME* since 2012 (Eastern North Carolina Section)
   Dynamic Systems and Control Division
2. *Member of IEEE* since 2008 (Eastern North Carolina Section)
   Control Systems Society, Robotics and Automation Society
3. *Student member of IEEE* from 2005 until 2008 (Philadelphia Chapter)
   Control Systems Society, Robotics and Automation Society
4. *Member of the Technical Chamber of Greece* since 2003
   Mechanical Engineering

CURRENT RESEARCH FUNDING

Support Obtained as Principal Investigator

1. *Controlling Intermittently Connected Autonomous Robot Teams in Underwater Environments*
   Office of Naval Research
   Institutions: Duke University
   PI: Michael M. Zavlanos
   Total Award: $506,363, 04/15/2018 - 04/14/2022.

Support Obtained as Co-Principal Investigator

1. *Design of an Agile and Smart Manufacturing Exchange: Enabling Small Businesses through Standardized Protocols and Distributed Optimization*
   National Science Foundation, Early-Concept Grants for Exploratory Research (EAGER) in Cybermanufacturing Systems
   Institutions: Duke University
   PI: Krishnendu Chakrabarty, co-PI(s): Michael M. Zavlanos, Bruce Maggs
   Total Award: $279,416 (PI Zavlanos Award: $134,433), 09/01/2015 - 08/31/2018.

PREVIOUS RESEARCH FUNDING

Support Obtained as Principal Investigator

1. *Control of Mobile Robot Networks: Integrating the Communication and Physical Domains*
   National Science Foundation, Faculty Early Career Development (CAREER) Program, Research Experiences for Undergraduates (REU) Program
   Institutions: Duke University
   PI: Michael M. Zavlanos
   Total Award: $10,420, 09/01/2014 - 05/31/2017.
2. *Distributed Real-Time Optimization of Mobile Wireless Networks*
   Office of Naval Research, Young Investigator Program (YIP)
   Institutions: Duke University
   PI: Michael M. Zavlanos
   Total Award: $502,494, 07/01/2014 - 09/30/2017.
3. *Optimal Communication for Fast Sensor Network Coordination*
   National Science Foundation, Networking Technology and Systems (NeTS) Program
   Institutions: Duke University (Lead), University of Pennsylvania
   Duke PI: Michael M. Zavlanos (single PI at Duke)
   Total Award: $774,990 (PI Zavlanos Award: $259,990), 10/01/2013 - 09/30/2017.
4. *Mobile Microrobot Platform for Advanced Manufacturing Applications*
   National Science Foundation, Robust Intelligence (RI) Program
   Institutions: Purdue University (Lead), Duke University
   Duke PI: Michael M. Zavlanos (single PI at Duke)
   Total Award: $599,861 (PI Zavlanos Award: $184,482), 07/01/2013 - 06/30/2017.
5. *Controlling Teams of Autonomous Mobile Beamformers*
   National Science Foundation, Networking Technology and Systems (NeTS) Program
   Institutions: Duke University (Lead), Rutgers University
   Subcontracts: Purdue University
   Duke PI: Michael M. Zavlanos (single PI at Duke)
   Total Award: $550,000 (PI Zavlanos Award: $294,000), 03/01/2013 - 02/28/2017.

6. *Control of Mobile Robot Networks: Integrating the Communication and Physical Domains*
   National Science Foundation, Faculty Early Career Development (CAREER) Program
   Institutions: Duke University
   PI: Michael M. Zavlanos
   Total Award: $449,569, 02/01/2011 - 05/31/2017.

Support Obtained as Co-Principal Investigator

1. *Acquisition of a Large Volume, High Resolution Motion Capture System for an Interdisciplinary Research Facility*
   National Science Foundation, CNS-MRI Program
   Institutions: Purdue University (Lead), Duke University, Stevens Institute of Technology
   PI: David Cappelleri, co-PI(s): Michael M. Zavlanos, Philippos Mordohai, Mark Blackburn, Antonio Valdevit
   Total Award: $203,988, 09/01/2012 - 08/31/2015.