

TRYPHON T. GEORGIU
Distinguished Professor
Mechanical and Aerospace Engineering
University of California, Irvine
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Education:

1983 Doctor of Philosophy (Electrical Engineering), University of Florida, Gainesville, FL
1979 Diploma (Mechanical and Electrical Engineering), National Technical University of Athens, Greece

Employment:

2016–present Professor (Above Scale), Mechanical and Aerospace Engineering, Univ. of California, Irvine, CA
2016–present Prof. Emeritus, Dept. of Electrical Eng. and Computer Science, Univ. of Minnesota, Minneapolis, MN
1994–2016 Professor, Dept. of Electrical Eng. and Computer Science, Univ. of Minnesota, Minneapolis, MN
1989–1994 Assoc. Prof., Dept. of Electrical Eng. and Computer Science, Univ. of Minnesota, Minneapolis, MN
1988-1989 Associate Prof., Department of Electrical Engineering, Iowa State University, Ames, IA
1986-1988 Assistant Prof., Department of Electrical Engineering, Iowa State University, Ames, IA
1983-1986 Assistant Prof., Department of Electrical Engineering, Florida Atlantic University, Boca Raton, FL

Research Interests:

Control and Dynamical Systems, Optimization, Thermodynamics, Quantum Mechanics, Mathematical Physics.

Notable honors and awards:

2011 Foreign Member of the Royal Swedish Academy of Engineering Sciences, (IVA)
2022 Fellow, American Association for the Advancement of Science (AAAS)
2023 Fellow, Hellenic Institute for Advanced Studies (HIAS)
2021 Fellow, Society for Industrial and Applied Mathematics (SIAM)
2016 Fellow, International Federation of Automatic Control (IFAC)
2000 Fellow, Institute of Electrical and Electronic Engineers (IEEE)
2018- UCI Distinguished Professor, University of California, Irvine
2016-2018 Chancellor's Professor, University of California, Irvine
2002-2016 Vincentine Hermes-Luh Chair (Electrical Engineering), University of Minnesota
1992, 1999, 2003, 2017 IEEE Control Systems Society G.S. Axelby Outstanding Paper Award (4 times winner)

Professional Society Membership:

American Physical Society (APS)
American Mathematical Society (AMS)
American Association for the Advancement of Science (AAAS)
Society for Industrial and Applied Mathematics (SIAM)
Institute of Electrical and Electronic Engineers (IEEE)

Notable Professional Activities and Service:

2025 Spring Organizing committee, IPAM @ UCLA, Long Program on: Non-commutative Optimal Transport
2022 April Instructor: African Institute for Math. Sciences (AIMS), Quantum Leap Africa-postdoctoral program, Rwanda
2021-2022 Member, Bode Award Committee, IEEE Control Systems Society
2018-2021 Chair, Awards, IEEE Control Systems Society
2016 July General Chair, 22nd International Symposium on Mathematical Theory of Networks and Systems
2015-2016 General Chair, Thematic Year in Control, Institute of Mathematics & its Applications, Univ. of Minnesota
2002–2005 Member, Board of Governors, IEEE Control Systems Society (elected)
1990-2016 Director, Center for Control Science and Dynamical Systems, University of Minnesota

Peer reviewed articles and book chapters:

2026

- P-201. R. Sabbagh, A. Eldesoukey, R. Sabbagh, and **T.T. Georgiou**, On the Isospectral Nature of Minimum-Shear Covariance Control, **IEEE Control Systems Letters**, under review.
- P-200. R. Sabbagh and **T.T. Georgiou**, Isospectral Steering, **IEEE Transactions on Automatic Control**, under review.
- P-199. H. Farooq, Y. Chen, G. Rasool, **T.T. Georgiou**, and C. Lenglet, Diffusion MRI Experimental Design Optimization for Microstructure Imaging, *Communications Biology*, 2026, www.biorxiv.org/content/10.1101/2024.12.09.627646v1
- P-198. Mahmoud Abdelgalil, **T.T. Georgiou**, The Holonomy of Optimal Mass Transport: The Gaussian-Linear Case, **IEEE Trans. on Automatic Control**, January 2026, doi: 10.1109/TAC.2025.3598675

2025

- P-197. Mahmoud Abdelgalil, **T.T. Georgiou**, Collective steering in finite time: controllability on $GL^+(n, R)$, **IEEE Transactions on Automatic Control**, (Nov 2025), doi 10.1109/TAC.2025.3574186
- P-196. Yongxin Chen, **T.T. Georgiou**, and Michele Pavon, Optimal Survival Strategies for Diffusive Flows: A Schrödinger Bridge Approach to Unbalanced Transport, **SIAM Review** 67 (3), 579-604, 2025, doi.org/10.1137/25M176581X
- P-195. Olga Movilla Miangolarra, Ralph Sabbagh, **T.T. Georgiou**, Quantum Schrödinger bridges: Large deviations and time-symmetric ensembles, **Physical Review A** 112 (1), 012202, DOI: doi.org/10.1103/k35b-rkct
- P-194. O. Movilla Miangolarra, A. Eldesoukey, A. Movilla Miangolarra, and **T.T. Georgiou** Maximum entropy inference of reaction-diffusion models, **Journal of Chemical Physics** (Vol.162, Issue 19), 2025 doi.org/10.1063/5.0256659
- P-193. Anqi Dong, **T.T. Georgiou**, and Allen Tannenbaum, Negative Probabilities and the Sinkhorn Algorithm: promotion/inhibition interactions in networks In memory of Roger W. Brockett, to appear, **American Institute of Mathematical Sciences**.
- P-192. Ralph Sabbagh, Olga Movilla Miangolarra, Hamid Hezari, **T.T. Georgiou**, Particle approximations of Wigner distributions for n arbitrary observables, **Physical Review Research** 7, no. 1 (2025): 013102. arxiv.org/abs/2409.19206, doi 10.1103/PhysRevResearch.7.013102
- P-191. Ralph Sabbagh, Olga Movilla Miangolarra, **T.T. Georgiou**, On a time-resolved interpretation of the Husimi function, **publication pending**, arxiv.org/abs/2505.00245
- P-190. A. Eldesoukey and **T.T. Georgiou**, “Schrödinger’s control and estimation paradigm with spatio-temporal distributions on graphs,” in **IEEE Transactions on Automatic Control**, **70(4)**: 2466-2478, 2025, doi 10.1109/TAC.2024.3485537
- P-189. A. Eldesoukey, O. Movilla Miangolarra, and **T.T. Georgiou**, Inferring Evanescent Stochastic Dynamics from Marginal Distributions, **Journal of Systems Science and Complexity** 38.1 (2025): 129-149, doi.org/10.1007/s11424-025-4440-9
- P-188. Mao, Qi, Yong Xu, Jianqi Chen, Jie Chen, and **T.T. Georgiou**, Maximization of Gain/Phase Margins by PID Control, **IEEE Transactions on Automatic Control**, **70(1)**: 34-49, January 2025 doi 10.1109/TAC.2024.3417717
- P-187. Luis Daniel Abreu, Daniel Alpay, **T.T. Georgiou**, Palle Jorgensen, Analytic continuation of time in Brownian motion. Stochastic distributions approach, **Journal of Mathematical Analysis and Applications**, publication pending, arxiv.org/abs/2501.14676

- P-186. Anqi Dong, **T.T. Georgiou**, Allen Tannenbaum, Data Assimilation for Sign-indefinite Priors: A generalization of Sinkhorn’s algorithm, **Automatica**, 2025, 1;177:112283. arxiv.org/abs/2308.11791, doi.org/10.1016/j.automatica.2025.112283
- P-185. Arthur Stephanovitch, Anqi Dong, **T.T. Georgiou**, Optimal transport through a toll station, **European Journal of Applied Mathematics** 36 (3), 613-637, 2025, [doi:10.1017/S0956792524000317](https://doi.org/10.1017/S0956792524000317)
- P-184. Miangolarra, Olga Movilla, Amirhossein Taghvaei, and **T.T. Georgiou**. Minimal entropy production in the presence of anisotropic fluctuations, **IEEE Transactions on Automatic Control**, 70(2): 845-860, 2025, [doi 10.1109/TAC.2024.3436748](https://doi.org/10.1109/TAC.2024.3436748)

2024

- P-183. W Wu, J Chen, MR Jovanović, **T.T. Georgiou**, “Tannenbaum’s gain-margin optimization meets Polyak’s heavy-ball algorithm,” **IEEE Trans. on Automatic Control**, pending, Sept. 2024, arxiv.org/abs/2409.19882
- P-182. Fu, Rui, Olga Movilla Miangolarra, Amirhossein Taghvaei, Yongxin Chen, and **T.T. Georgiou**. Stochastic thermodynamic engines under time-varying temperature profile. **Automatica** 159 (2024): 111361.
- P-181. Anqi Dong, Arthur Stephanovitch, **T.T. Georgiou**, Monge–Kantorovich optimal transport through constrictions and flow-rate constraints, **Automatica**, Volume 160, 2024, 111448, doi.org/10.1016/j.automatica.2023.111448.
- P-180. S. Zhang, W. Wu, Z. Li, J. Chen and **T.T. Georgiou**, “Frequency-Domain Analysis of Distributed Optimization: Fundamental Convergence Rate and Optimal Algorithm Synthesis,” **IEEE Transactions on Automatic Control**, **69(12)**: 8539-8554, December 2024, [doi: 10.1109/TAC.2024.3413854](https://doi.org/10.1109/TAC.2024.3413854).
- P-179. A. Eldesoukey, O. M. Miangolarra and **T.T. Georgiou**, “An Excursion onto Schrödinger’s Bridges: Stochastic Flows With Spatio-Temporal Marginals,” **IEEE Control Systems Letters**, vol. 8, pp. 1138-1143, 2024, [doi: 10.1109/LCSYS.2024.3409107](https://doi.org/10.1109/LCSYS.2024.3409107).
- P-178. Ventura Siches, Jordi, Olga Movilla Miangolarra, and **T.T. Georgiou***, “Refined bounds on energy harvesting from anisotropic fluctuations.” **Physical Review E** 109, no. 6 (2024): 064155.
- P-177. Ralph Sabbagh, Olga Movilla Miangolarra, and **T.T. Georgiou***, Wasserstein speed limits for Langevin systems **Phys. Rev. Research** 6, 033308 – Published 17 September 2024
- P-176. Movilla Miangolarra, Olga, Asmaa Eldesoukey, and **T.T. Georgiou***, “Inferring potential landscapes: A Schrödinger bridge approach to maximum caliber.” **Physical Review Research** **6**, no. 3 (2024): 033070.

2023

- P-175. Sabbagh R, Miangolarra OM, **T.T. Georgiou** Wasserstein speed limits for Langevin systems. **Physical Review Research**, volume 6(3), pages 033308-033317, 2024, [doi 10.1103/PhysRevResearch.6.033308](https://doi.org/10.1103/PhysRevResearch.6.033308),
- P-174. Dong A, Stephanovitch A, **Georgiou T.T.** Monge–Kantorovich optimal transport through constrictions and flow-rate constraints. **Automatica**. 2024 Feb 1;160:111448. doi.org/10.1016/j.automatica.2023.111448
- P-173. R. Fu, O. Movilla Miangolarra, A. Taghvaei, Y. Chen, **T.T. Georgiou**, Stochastic thermodynamic engines under time-varying temperature profile, **Automatica**. 2024 Jan 1;159:111361. [doi 10.1016/j.automatica.2023.111361](https://doi.org/10.1016/j.automatica.2023.111361)
- P-172. D. Grange, M. Al-Jarrah, R. Baptista, A. Taghvaei, **T.T. Georgiou** and A. Tannenbaum, Computational Optimal Transport and Filtering on Riemannian manifolds **IEEE Control Systems Letters** (Volume: 7) Pages 3495 - 3500 November 2023 [10.1109/LCSYS.2023.3331834](https://doi.org/10.1109/LCSYS.2023.3331834)
- P-171. Q. Mao, Y. Xu, J. Chen, **T.T. Georgiou**, Implementation-Oriented Filtered PID Control: Optimization of Robustness Margins, **Automatica**, vol. 152, 2023, 110974, doi.org/10.1016/j.automatica.2023.110974

P-170. O. Movilla Miangolarra, A. Taghvaei, **T.T. Georgiou**, A matching principle for power transfer in Stochastic Thermodynamics **IEEE Control Systems Letters**, vol. 7, pp. 2107 - 2112, 2023 doi: 10.1109/LC-SYS.2023.3285544

2022

- P-169. Inertialess Gyrating Engines J Ventura Siches, O Movilla Miangolarra, A Taghvaei, Y Chen, **T.T. Georgiou**, (2022). Inertialess gyrating engines. **Proc. National Academy of Sciences, Nexus**, 1(5): 1-9, doi.org/10.1093/pnasnexus/pgac251
- P-168. O. Movilla Miangolarra, A. Taghvaei, Y. Chen, **T.T. Georgiou**, Geometry of finite-time thermodynamic cycles with anisotropic thermal fluctuations, **IEEE Control Systems Letters**, **6**: 3409-3414 (2022), doi 10.1109/LCSYS.2022.3184912
- P-167. O. Movilla Miangolarra, A. Taghvaei, Y. Chen, **T.T. Georgiou**, Thermodynamic engine powered by anisotropic fluctuations **Physical Review Research**, vol. 4, 023218 1-7 (2022) DOI: 10.1103/PhysRevResearch.4.023218
- P-166. F. Ariaei, Z. Askarzadeh, Y. Chen, **T.T. Georgiou**, Macroscopic Network Circulation for Planar Graphs **IEEE Trans. on Control of Network Systems**, **9(4)**: 1840-1850 (2022). DOI 10.1109/TCNS.2022.3175127
- P-165. Y. Chen, **T.T. Georgiou**, and M. Pavon, The most likely evolution of diffusing and vanishing particles: Schrödinger Bridges with unbalanced marginals, **SIAM Journal on Control and Optimization** **60.4** (2022): 2016-2039, doi.org/10.1137/21M1447672
- P-164. A. Taghvaei, O. M. Miangolarra, R. Fu, Y. Chen, **T.T. Georgiou**, "On the Relation Between Information and Power in Stochastic Thermodynamic Engines," **IEEE Control Systems Letters**, vol. 6, pp. 434-439 (2022), doi: 10.1109/LCSYS.2021.3078716.

2021

- P-163. O.M. Miangolarra, A. Taghvaei, R. Fu, Y. Chen, **T.T. Georgiou**, Energy harvesting from anisotropic fluctuations. *Physical Review E*, 104(4), 044101, (2021). doi 10.1103/PhysRevE.104.044101
- P-162. O.M. Miangolarra, R. Fu, A. Taghvaei, Y. Chen, and **T.T. Georgiou**, Underdamped stochastic thermodynamic engines in contact with a heat bath with arbitrary temperature profile, *Physical Review E*, vol. 103(6), (2021). doi 10.1103/PhysRevE.103.062103
- P-161. Y. Chen, **T.T. Georgiou**, M. Pavon, Optimal Transport in Systems and Control, *Annual Reviews: Annual Review of Control, Robotics, and Autonomous Systems*, 4:1, 89-113 (2021). doi 10.1146/annurev-control-070220-100858
- P-160. Y. Chen, **T.T. Georgiou**, M. Pavon, Stochastic control liaisons: Richard Sinkhorn meets Gaspard Monge on a Schrödinger bridge, *SIAM Review*, 63(2), pp.249-313 (2021). doi.org/10.1137/20M1339982
- P-159. **T.T. Georgiou** and A. Lindquist, On a Fejér-Riesz factorization of generalized trigonometric polynomials, *Communications in Information and Systems, CIS Vol. 21, No. 3* (2021), pp. 371-384. doi.org/10.4310/CIS.2021.v21.n3.a3
- P-158. R. Fu, A. Taghvaei, Y. Chen, **T.T. Georgiou**, Maximal power output of a stochastic thermodynamic engine, *Automatica*, Volume 123, 109366, (2021). doi.org/10.1016/j.automatica.2020.109366.
- P-157. V. Ciccone, Y. Chen, **T.T. Georgiou** and M. Pavon, "Regularized Transport Between Singular Covariance Matrices," in *IEEE Transactions on Automatic Control*, vol. 66, no. 7, pp. 3339-3346, (2021). doi: 10.1109/TAC.2020.3017714.
- P-156. Y. Chen, **T.T. Georgiou**, and M. Pavon, Controlling Uncertainty Schrödinger's Inference Method and the Optimal Steering of Probability Distributions, *Control Systems Magazine*, **41(4)**: 82-94, (2021).

P-155. Y. Chen, **T.T. Georgiou**, M. Pavon, Fast and asymptotic steering to a steady state for networks flows, Springer Nature Switzerland AG 2021, LNCS 12829, pp. 860-868, (2021). doi.org/10.1007/978-3-030-80209-7_92

P-154. A. Karimi, L. Ripani, and **T.T. Georgiou**, Statistical learning in Wasserstein space, *IEEE Control Systems Letters*, July 2021, vol. 5(3): 899-904, (2021). doi: 10.1109/LCSYS.2020.3006965

2020

P-153. A. Taghvaei, **T.T. Georgiou**, L. Norton, A.R. Tannenbaum, Fractional SIR Epidemiological Models, **Nature Scientific Reports**, (2020) 10:20882, doi.org/10.1038/s41598-020-77849-7

P-152. C. Guilloteau, A. Mamalakis, L. Vulis, **T.T. Georgiou**, and E. Foufoula-Georgiou, Rotated spectral principal component analysis (rsPCA) for identifying dynamical modes of variability in climate systems, **Journal of Climate** (2020): 715-736, doi.org/10.1175/JCLI-D-20-0266.1

P-151. A. Zare, M. Hesameddin, N.K. Dhingra, **T.T. Georgiou**, M.R. Jovanovic, Proximal algorithms for large-scale statistical modeling and sensor/actuator selection, **IEEE Trans. on Automatic Control**, vol. 65(8): 3441-3456, August 2020, doi: 10.1109/TAC.2019.2948268

P-150. Y. Chen , **T.T. Georgiou**, and A. Tannenbaum, Stochastic control and non-equilibrium thermodynamics: fundamental limits, **IEEE Trans. on Automatic Control**, **65(7)**: 2979-2991, July 2020, doi 10.1109/TAC.2019.2939625

P-149. **T.T. Georgiou**, F. Jabbari, M.C. Smith, Principles of lossless adjustable one-ports, **IEEE Trans. on Automatic Control**, **65(1)**: 252-262, January 2020. doi 10.1109/TAC.2019.2917853

P-148. Y Chen, **T.T. Georgiou**, M Pavon, A Tannenbaum, Relaxed Schrödinger bridges and robust network routing, **IEEE Transactions on Control of Network Systems**, Volume: 7 , Issue: 2 , Page(s): 923 - 931, June 2020. doi 10.1109/TCNS.2019.2935623

P-147. Z. Askarzadeh, R. Fu, A. Halder, Y. Chen, and **T.T. Georgiou**, Stability Theory of Stochastic Models in Opinion Dynamics, **IEEE Trans. on Automatic Control**, Volume: 65 , Issue: 2 , Page(s): 522 - 533, Feb. 2020., DOI 10.1109/TAC.2019.2912490.

2019

P-146. H Farooq, Y Chen, **T.T. Georgiou**, AR Tannenbaum, C Lenglet, Network Curvature as a Hallmark of Brain Structural Connectivity, *Nature Communications*, 10, 4937 (2019) doi:10.1038/s41467-019-12915-x

P-145. A.R. Tannenbaum, **T.T. Georgiou**, J. Deasy, L. Norton, Control and the Analysis of Cancer Growth Models, *Operator Theory: Advances and Applications*, **272**:377-387, 2019, Springer Nature Switzerland AG 2019. doi.org/10.1007/978-3-030-11614-9_14

P-144. A. Zare, **T.T. Georgiou** and M. R. Jovanović, Stochastic dynamical modeling of turbulent flows, *Annual Reviews in Control Robot. Auton. Syst.* 2019. 3: 195-219.

P-143. Y. Chen, G. Conforti, **T.T. Georgiou**, L. Ripani, Multi-marginal Schrodinger bridges, In Geometric Science of Information LNCS 11712, pp. 725-732, 2019. Springer Nature Switzerland AG 2019, doi.org/10.1007/978-3-030-26980-7_75

P-142. Y. Chen, W. Gangbo, **T.T. Georgiou**, A. Tannenbaum, On the Matrix Monge-Kantorovich Problem, *European Journal of Applied Mathematics*, 2019, doi:10.1017/S0956792519000172.

P-141. Y. Chen, **T.T. Georgiou**, A. Tannenbaum, Optimal transport for Gaussian mixture models, *IEEE Access*, **7(1)**: 6269-6278, 2018. doi 10.1109/ACCESS.2018.2889838

- P-140. **T.T. Georgiou** and A. Lindquist, Dynamic Relations in Sampled Processes, *IEEE Control Systems Letters*, January 2019, **3 (1)**:144-149. doi: 10.1109/LCSYS.2018.2859481
- P-139. A.R. Tannenbaum, **T.T. Georgiou**, J. Deasy, L. Norton, Control and the Analysis of Cancer Growth Models, *Operator Theory: Advances and Applications*, **272**:377-387, 2019, Springer Nature Switzerland AG 2019. doi.org/10.1007/978-3-030-11614-9_14
- P-138. Y. Chen, G. Conforti, **T.T. Georgiou**, L. Ripani, Multi-marginal Schrodinger bridges, In *Geometric Science of Information* F. Nielsen and F. Barbaresco (Eds.): GSI 2019, LNCS 11712, pp. 725-732, 2019. Springer Nature Switzerland AG 2019, doi.org/10.1007/978-3-030-26980-7_75, arXiv:1902.08319
- P-137. Y. Chen, **T.T. Georgiou**, and A. Tannenbaum, Probabilistic Kernel Support Vector Machines, arXiv:1904.06762, 2019

2018

- P-136. H. Farooq, Y. Chen, **T.T. Georgiou**, C. Lenglet, Brain Parcellation and Connectivity Mapping Using Wasserstein Geometry In: Kaden E., Grussu F., Ning L., Tax C., Veraart J. (eds) *Computational Diffusion MRI*, Mathematics and Visualization, pp. 165-174, April 2018. Springer. doi.org/10.1007/978-3-319-73839-0_13
- P-135. Y. Chen, **T.T. Georgiou**, and A. Tannenbaum, Wasserstein Geometry of Quantum States and Optimal Transport of Matrix-Valued Measures, *Lecture Notes in Control and Information Sciences*, pp. 139-150, Springer. doi.org/10.1007/978-3-319-67068-3_10
- P-134. Y. Chen, **T.T. Georgiou**, and M. Pavon, Steering the Distribution of Agents in Mean-Field Games, *Journal of Optimization Theory and Applications*, **179 (1)**: 332-357, 2018. doi.org/10.1007/s10957-018-1365-7
- P-133. Y. Chen , **T.T. Georgiou**, and A. Tannenbaum, Vector-Valued Optimal Mass Transport, *SIAM Journal on Applied Mathematics*, **8(3)**: pp. 1682-1696, 2018. doi.org/10.1137/17M1130897
- P-132. Y. Chen, **T.T. Georgiou**, A. Tannenbaum, Interpolation of matrices and matrix-valued densities: The unbalanced case *European Journal of Applied Mathematics*, 1-23, May 2018. doi.org/10.1017/S0956792518000219
- P-131. Y. Chen, G. Conforti, **T.T. Georgiou**, Measure-valued spline curves: An optimal transport viewpoint, *SIAM Journal on Mathematical Analysis*, **50 (6)**: 5947-5968, 2018. doi.org/10.1137/18M1166249
- P-130. A. Tejedor, A. Longjas, E. Foufoula-Georgiou, **T.T. Georgiou**, and Y. Moreno, Diffusion Dynamics and Optimal Coupling in Multiplex Networks with Directed Layers, *Physical Review X* **8**: 031071 (2018), doi: 10.1103/PhysRevX.8.031071
- P-129. K. Yamamoto, Y. Chen, L. Ning, **T.T. Georgiou**, A. Tannenbaum, Regularization and Interpolation of Positive Matrices, *IEEE Transactions on Automatic Control*, **63(4)**: 1208-1212, April 2018. doi 10.1109/TAC.2017.2749258
- P-128. **T.T. Georgiou**, "Rudolf E. Kalman's quest for algebraic characterizations of positivity," *Annual Reviews in Control*, **45**: 205-206, 2018. doi.org/10.1016/j.arcontrol.2018.01.001
- P-127. Y. Chen, E. Haber, K. Yamamoto, **T.T. Georgiou**, A. Tannenbaum, An efficient algorithm for Matrix-Valued and Vector-Valued Optimal Mass Transport, *Journal of Scientific Computing*, **77 (1)**: 79-100, 2018. doi.org/10.1007/s10915-018-0696-8
- P-126. Y. Chen, **T.T. Georgiou**, M. Pavon, and A. Tannenbaum, Efficient Robust Routing for Single Commodity Network Flows, *IEEE Transactions on Automatic Control*, **63 (7)**: 2287-2294, July 2018, doi 10.1109/TAC.2017.2763418

- P-125. Y. Chen, **T.T. Georgiou**, and M. Pavon, Optimal steering of a linear stochastic system to a final probability distribution, part III, *IEEE Transactions on Automatic Control*, **63 (9)**: 3112-3118, September 2018, doi10.1109/TAC.2018.2791362
- P-124. Y. Chen and J. Karlsson and **T.T. Georgiou**, The rôle of the time-arrow in mean-square estimation of stochastic processes, *IEEE Control & Systems Letters*, **2(1)**: 85-90, 2018. doi 10.1109/LCSYS.2017.2740957
- P-123. Y. Chen, **T.T. Georgiou**, and A. Tannenbaum, Matrix Optimal Mass Transport: a Quantum Mechanical Approach *IEEE Transactions on Automatic Control*, **63 (8)**: 2612-2619, August 2018 doi: 10.1109/TAC.2017.2767707
- P-122. Y. Chen, **T.T. Georgiou**, and A. Tannenbaum, Wasserstein Geometry of Quantum States and Optimal Transport of Matrix-Valued Measures, In: Tempo R., Yurkovich S., Misra P. (eds) *Emerging Applications of Control and Systems Theory*. Lecture Notes in Control and Information Sciences, pp. 139-150, 2018, Springer. doi.org/10.1007/978-3-319-67068-3_10
- P-121. H. Farooq, Y. Chen, **T.T. Georgiou**, C. Lenglet, Brain Parcellation and Connectivity Mapping Using Wasserstein Geometry In: Kaden E., Grussu F., Ning L., Tax C., Veraart J. (eds) *Computational Diffusion MRI*, Mathematics and Visualization, pp. 165-174, April 2018. Springer. doi.org/10.1007/978-3-319-73839-0_13

2017

- P-120. A. Zare, Y. Chen, M. Jovanovic, **T.T. Georgiou**, Low-Complexity Modeling of Partially Available Second-Order Statistics: Theory and an Efficient Matrix Completion Algorithm, *IEEE Trans. on Aut. Control*, **62 (3)**: 1368 - 1383, March 2017. 10.1109/TAC.2016.2595761
- P-119. Y. Chen, **T.T. Georgiou**, and M. Pavon, Optimal transport over a linear dynamical system, *IEEE Trans. on Automatic Control*, **62(5)**: 5590-5603, 2137-2152, 2017. doi 10.1109/TAC.2016.2602103
- P-118. **T.T. Georgiou** and A. Lindquist, Optimal estimation with missing observations via balanced time-symmetric stochastic models, *IEEE Trans. on Automatic Control*, **62(11)**: 5590-5603, November 2017. doi 10.1109/TAC.2017.2689685
- P-117. A. Zare, M.R. Jovanović, **T.T. Georgiou**, Colour of turbulence, *J. Fluid Mech.* (2017), vol. 812, pp. 636-680. doi:10.1017/jfm.2016.682
- P-116. Y. Chen, **T.T. Georgiou**, M. Pavon, A. Tannenbaum, Robust transport over networks, *IEEE Trans. on Automatic Control*, **62(9)**: 4675 - 4682, 2017. doi 10.1109/TAC.2016.2626796
- P-115. Y. Chen, **T.T. Georgiou**, L. Ning, A. Tannenbaum, Matricial Wasserstein-1 Distance, *IEEE Control Systems Letters*; **1(1)**: 14-19, 2017. doi 10.1109/LCSYS.2017.2699319
- P-114. **T.T. Georgiou** and A. Lindquist, Likelihood Analysis of Power Spectra and Generalized Moment Problems, *IEEE Trans. on Automatic Control*, **62(9)**: 4580 - 4592, 2017, doi: 10.1109/TAC.2017.2672862
- P-113. A. Tejedor, A. Longjas, D.A. Edmonds, I. Zaliapin, **T.T. Georgiou**, A. Rinaldo, and E. Foufoula-Georgiou, Entropy and optimality in river deltas, *Proceedings of the National Academy of Sciences (PNAS)*, October 31, 2017, **114(44)**: 11651-11656. doi.org/10.1073/pnas.1708404114

2016

- P-112. Y. Chen, **T.T. Georgiou**, M. Pavon, Entropic and displacement interpolation: a computational approach using the Hilbert metric *SIAM J. Appl. Math.* December 2016, Vol. 76, No. 6, pp. 2375-2396. doi.org/10.1137/16M1061382

- P-111. H. Farooq, J. Xu, J.W. Nam, D. Keefe, E. Yacoub, **T.T. Georgiou**, C. Lenglet, Microstructure Imaging of Crossing (MIX) White Matter Fibers from diffusion MRI, *Nature, Scientific Reports*, 6:38927, December 2016, doi: 10.1038/srep38927
- P-110. R. Sandhu, **T.T. Georgiou**, A. Tannenbaum, Ricci Curvature: An Economic Indicator for Market Fragility and Systemic Risk *Science Advances*, 2016; 2:e1501495 *published: 27 May 2016*. doi 10.1126/sciadv.1501495, arxiv.org/abs/1505.05182
- P-109. Y. Chen, **T.T. Georgiou**, M. Pavon, On the relation between optimal transport and Schrödinger bridges: A stochastic control viewpoint, *Journal of Optimization Theory and Applications*, **169**: 671 - 691, 2016. doi 10.1007/s10957-015-0803-z,
- P-108. Y. Chen, Y. **T.T. Georgiou**, M. Pavon, Optimal steering of a linear stochastic system to a final probability distribution, part I, *IEEE Trans. on Automatic Control*, **61 (5)**: 1158 - 1169, May 2016
DOI: 10.1109/TAC.2015.2457784
- P-107. Chen, Y. **T.T. Georgiou**, M. Pavon, Optimal steering of a linear stochastic system to a final probability distribution, part II, *IEEE Trans. on Automatic Control*, **61 (5)**: 1170 - 1180, May 2016, doi 10.1109/TAC.2015.2457791, arxiv.org/abs/1410.3447
- P-106. Chen, Y. and **T.T. Georgiou**, Stochastic bridges of linear systems, *IEEE Trans. on Automatic Control*, **61 (2)**: 526 - 531, February 2016. doi 10.1109/TAC.2015.2440567, <http://arxiv.org/abs/1407.3421>
- P-105. H. Farooq, J. Xu, E. Yacoub, **T.T. Georgiou**, and C. Lenglet, Brain Tissue Micro-Structure Imaging from Diffusion MRI Using Least Squares Variable Separation, *Computational Diffusion MRI, MICCAI*, 55-64, Springer, 2016, doi 0.1007/978-3-319-28588-7.

2015

- P-104. L. Ning, **T.T. Georgiou**, and A. Tannenbaum, "Matrix-valued Monge-Kantorovich Optimal Mass Transport," *IEEE Trans. on Automatic Control*, **60(2)**: 373-382, February 2015.
- P-103. L. Ning, **T.T. Georgiou**, A. Tannenbaum, and S.P. Boyd, "Linear models based on noisy data and the Frisch scheme," *SIAM Review* **57.2**: 167-197, 2015.
- P-102. **T.T. Georgiou** and M. Pavon, Positive contraction mappings for classical and quantum Schrödinger systems, *Journal of Mathematical Physics*, **56** 033301 (2015)
- P-101. Chen, Y. **T.T. Georgiou**, M. Pavon, Fast cooling for a system of stochastic oscillators, *J. of Physics A*, **56**: 113302 (2015). doi 10.1063/1.4935435, arxiv.org/abs/1411.1323
- P-100. R. Sandhu, **T.T. Georgiou**, E. Reznik, L. Zhu, I. Kolesov, Y. Senbabaoglu, and A. Tannenbaum, Graph Curvature for Differentiating Cancer Networks, *Nature, Scientific Reports*, 5:12323 *Published: Published: 14 July 2015*. doi 10.1038/srep12323
- P-99. Y. Chen, **T.T. Georgiou**, M. Pavon, Optimal mass transport over bridges, *International Conference on Geometric Science of Information, Springer, Lecture Notes in Computer Science series*, volume 9389, pp. 77-84, 2015.

2014

- P-98. A. Dorobantu, G.J. Balas, and **T.T. Georgiou**, Validating Aircraft Models in the Gap Metric, *Journal of Aircraft, AIAA*, **51(6)**: 1665-1672, 2014.
- P-97. Ning, Lipeng, and **T.T. Georgiou**, Metrics for matrix-valued measures via test functions In 53rd IEEE Conference on Decision and Control, pp. 2642-2647. IEEE, 2014.

- P-96. Lipeng Ning, Francesca P. Carli, Ardeshir Mohammad Ebtehaj, Efi Foufoula-Georgiou, **T.T. Georgiou**, “Coping with model error in variational data assimilation using optimal mass transport,” *Water Resources Research*, **50(7)**: 5817-5830, July 2014.

2013

- P-95. **T.T. Georgiou** and A. Lindquist, “The Separation Principle in Stochastic Control, Redux,” *IEEE Trans. on Automatic Control*, **58(10)**: 2481-2494, October 2013.
- P-94. J.Karlsson and **T.T. Georgiou**, “Uncertainty bounds for spectral estimation,” *IEEE Trans. on Automatic Control*, **58(7)**: 1659-1673, July 2013.
- P-93. Lipeng Ning, Xianhua Jiang and **T.T. Georgiou**, On the geometry of covariance matrices, *IEEE Signal Processing Letters*, **20(8)**: 787-790, August 2013.
- P-92. Carli, Francesca P and Ning, Lipeng and **T.T. Georgiou**, Convex clustering via optimal mass transport, arXiv preprint arXiv:1307.5459, 2013

2012

- P-91. Xianhua Jiang, Zhi-Quan (Tom) Luo and **T.T. Georgiou**, “Geometric Methods for Spectral Analysis,” *IEEE Trans. on Signal Processing*, 60(3): 1064 - 1074, March 2012.
- P-90. Xianhua Jiang, Lipeng Ning, and **T.T. Georgiou**, “Distances and Riemannian metrics for multivariate spectral densities,” *IEEE Trans. on Automatic Control*, 57(7): 1723-1735, July 2012.
- P-89. E. Tannenbaum, **T.T. Georgiou**, and A. Tannenbaum, Optimal Mass Transport for Problems in Control, Statistical Estimation, and Image Analysis, *Mathematical Methods in Systems, Optimization, and Control*, pages 311–324, Springer-Verlag, 2012.
- P-88. M.S. Takyar and **T.T. Georgiou**, Fractional-order systems and the internal model principle, *Mathematical Methods in Systems, Optimization, and Control*, pages 295–309, Springer-Verlag, 2012.

2011

- P-87. F. Carli and **T.T. Georgiou** “On the Covariance Completion Problem under a Circulant Structure,” *IEEE Trans. on Automatic Control*, **56(4)**: 918 - 922, April 2011.

2010

- P-86. **T.T. Georgiou** and M.C. Smith, “Feedback Control and the Arrow of Time,” *International Journal of Control*, **83(7)**: 1325-1338, 2010. Also translated into Japanese and re-printed in: *Systems, Control and Information*, **53(7)**: 273-281, 2009.
- P-85. J. Karlsson, **T.T. Georgiou**, and A. Lindquist, “The Inverse Problem of Analytic Interpolation with Degree Constraint and Weight Selection for Control Synthesis,” *IEEE Trans. on Automatic Control*, **55(2)**: 405-418, February 2010.
- P-84. M.S. Takyar, and **T.T. Georgiou**, “Multivariable analytic interpolation with a degree constraint,” *IEEE Trans. on Automatic Control*, **55(5)**: 1057-1088, May 2010.
- P-83. **T.T. Georgiou** and A. Tannenbaum, Sparse Blind Source Deconvolution via ℓ_1 -norm Optimization, in *Perspectives in Mathematical System Theory, Control, and Signal Processing*, Jan C. Willems, Shinji Hara, Yoshito Ohta, and Hisaya Fujioka (Eds.), pages 321-330, Springer-Verlag, 2010.

2009

- P-82. **T.T. Georgiou**, J. Karlsson, and S. Takyar, "Metrics for power spectra: an axiomatic approach," *IEEE Trans. on Signal Processing*, **57(3)**: 859 - 867, March 2009.
- P-81. V.L. Bageshwar, D. Gebre-Egziabher, W.L. Garrard, and **T.T. Georgiou**, "Stochastic Observability Test for Discrete-Time Kalman Filters," *AIAA Journal of Guidance, Control, and Dynamics*, Vol. 32, No. 4, July-August 2009, pp. 1356-1370.
- P-80. **T.T. Georgiou** and A. Tannenbaum, Sparse Blind Source Deconvolution with Application to High Resolution Frequency Analysis, in *Three Decades of Progress in Systems and Control*, Hu, X.; Jonsson, U.; Wahlberg, B.; Ghosh, B. (Eds.), Springer-Verlag, 2009.

2008

- P-79. **T.T. Georgiou** and A. Lindquist, "A convex optimization approach to ARMA modeling," *IEEE Trans. on Automatic Control*, Volume 53, Issue 5, Page(s):1108 - 1119, June 2008.
- P-78. M.S. Takyar, A. Nasiri-Amini, and **T.T. Georgiou**, "Weight Selection in Feedback Design with Degree Constraints," *IEEE Trans. on Automatic Control*, **53(8)**: 1951-1955, September 2008.
- P-77. S. Varigonda, **T.T. Georgiou**, R.A. Siegel, and P. Daoutidis, "Optimal periodic control of a drug delivery system," *Computers and Chemical Engineering*, **32(10)**: 2256-2262, October 2008.
- P-76. X. Jiang, S. Takyar, and **T.T. Georgiou**, Metrics and morphing of power spectra, in *Lecture Notes in Control and Information Sciences, Recent Advantages in Learning and Control*, (Blondel V., Boyd S., Kimura H. eds.), vol. 371, Springer Verlag 2008.

2007

- P-75. **T.T. Georgiou**, "The Carathéodory-Fejér-Pisarenko decomposition and its multivariable counterpart," *IEEE Trans. on Automatic Control*, **52(2)**: 212-228, February 2007.
- P-74. **T.T. Georgiou**, "Distances and Riemannian Metrics for Spectral Density Functions," *IEEE Trans. on Signal Processing*, **55(8)**: 3995-4003, August 2007.
- P-73. **T.T. Georgiou**, "An intrinsic metric for power spectral density functions," *IEEE Signal Processing Letters*, **14(8)**: 561-563, August 2007.
- P-72. **T.T. Georgiou**, "The maximum entropy principle in the absence of a time-arrow: fractional pole models," *IEEE Trans. on Information Theory*, **53(8)**: 2841-2851, August 2007.
- P-71. **T.T. Georgiou**, O. Michailovich, Y. Rathi, J. Malcolm, and A. Tannenbaum, Distribution Metrics and Image Segmentation, *Linear Algebra and its Applications*, **425(2-3)**: 663-672, September 2007.
- P-70. **T.T. Georgiou**, "Distances between time-series and their autocorrelation statistics," in *Lecture Notes in Control and Information Sciences*, vol. 364, pages 113-122, Springer Verlag, 2007.

2006

- P-69. C.I. Byrnes, **T.T. Georgiou**, A. Lindquist, and A. Megretski, "Generalized interpolation in H^∞ with a complexity constraint," *Trans. Amer. Math. Soc.* **358(3)**: 965-987, 2006.
- P-68. **T.T. Georgiou**, "Relative Entropy and the multi-variable multi-dimensional Moment Problem," *IEEE Trans. on Information Theory*, **52(3)**: 1052 - 1066, March 2006.
- P-67. **T.T. Georgiou** and A. Lindquist, "Remarks on control design with degree constraint," *IEEE Trans. on Automatic Control*, **51(7)**: 1150-1156, July 2006.

P-66. **T.T. Georgiou**, "Decomposition of Toeplitz matrices via convex optimization," *IEEE Signal Processing Letters*, **13(9)**: 537- 540, September 2006.

P-65. A. Nasiri Amini and **T.T. Georgiou**, "Tunable Line Spectral Estimators Based on State-Covariance Subspace Analysis," *IEEE Trans. on Signal Processing*, **54(7)**: 2662- 2671, July 2006.

2005

P-64. A. Nasiri Amini, E. Ebbini, and **T.T. Georgiou**, "Noninvasive tissue temperature estimation using high-resolution spectral analysis techniques," *IEEE Trans. on Biomedical Engineering*, **52(2)**: 221-228, February 2005.

P-63. **T.T. Georgiou**, "Solution of the general moment problem via a one-parameter imbedding," *IEEE Trans. on Automatic Control*, **50(6)**: 811-826, June 2005.

P-62. A. Nasiri Amini and **T.T. Georgiou**, "Avoiding Ambiguity in Beamspace Processing," *IEEE Signal Processing Letters*, **12(5)**: 372 - 375, May 2005.

2004

P-61. S. Varigonda, **T.T. Georgiou**, and P. Daoutidis, "Numerical solution of the optimal periodic control problem using differential flatness," *IEEE Trans. on Automatic Control*, **49(2)**: 271 - 275, February 2004.

2003

P-60. **T.T. Georgiou** and A. Lindquist, "Kullback-Leibler approximation of spectral density functions," *IEEE Trans. on Information Theory*, **49(11)**, November 2003.

P-59. **T.T. Georgiou**, Toeplitz covariance matrices and the von Neumann relative entropy, in Control and Modeling of Complex Systems: Cybernetics in the 21st Century, pages 23–29, K. Hashimoto, Y. Oishi, and Y. Yamamoto, Eds. Boston, MA: Birkhauser, 2003.

P-58. **T.T. Georgiou**, "Structured covariances and related approximation questions," in Lecture Notes in Control and Information Sciences, Volume 286, 2003, pp. 135-140, Springer Verlag, 2003.

P-57. **T.T. Georgiou**, "The mixing of state covariances," in Lecture Notes in Control and Information Sciences, Volume 289, 2003, pp. 207-212, Springer Verlag, 2003.

2002

P-56. **T.T. Georgiou**, "The structure of state covariances and its relation to the power spectrum of the input," *IEEE Trans. on Automatic Control*, **47(7)**: 1056-1066, July 2002.

P-55. **T.T. Georgiou**, "Spectral Analysis Based on the State Covariance: The Maximum Entropy Spectrum and Linear Fractional Parametrization," *IEEE Trans. on Automatic Control*, **47(11)**: 1811-1823, November 2002.

P-54. **T.T. Georgiou**, P.J. Olver, and A. Tannenbaum, Maximal entropy for reconstruction of back projection images, "IMA Volumes in Mathematics and its Applications," *Volume 133: Mathematical methods in computer vision* Springer-Verlag, New York, 2002.

2001

P-53. **T.T. Georgiou**, "Analytic Interpolation and the Degree Constraint," *Int. J. Applied Mathematics and Computer Science*, Special issue, guest editors M. Fliess and A. El Jai, January 2001, vol. 11, No 1, 101-109.

P-52. **T.T. Georgiou**, "Spectral Estimation by Selective Harmonic Amplification," *IEEE Trans. on Automatic Control*, **46(1)**: 29-42, January 2001.

- P-51. S. Varigonda and **T.T. Georgiou**, “Dynamics of relay relaxation oscillators,” *IEEE Trans. on Automatic Control*, **46(1)**: 65-77, January 2001.
- P-50. **T.T. Georgiou** and M.C. Smith, “Remarks on “Robustness Analysis of Nonlinear Feedback Systems An Input-Output Approach,”” *IEEE Trans. on Automatic Control*, **46(1)**: 171-172, January 2001.
- P-49. U. Walther, **T.T. Georgiou** and A. Tannenbaum, “On the Computation of Switching Surfaces in Optimal Control: A Groebner Basis Approach,” *IEEE Trans. on Automatic Control*, **46(4)**:534–540, 2002.
- P-48. C. Byrnes, **T.T. Georgiou**, and A. Lindquist, “A generalized entropy criterion for Nevanlinna-Pick interpolation: A convex optimization approach to certain problems in systems and control”, *IEEE Trans. on Automatic Control*, **45(6)**: 822-839, June 2001.
- P-47. I.J. Fialho and **T.T. Georgiou**, “Chapter 7: Computational Algorithms for Sparse Optimal Digital Controller Realizations,” in *Digital Controller Implementation and Fragility: A Modern Perspective*, Robert SH Istepanian & James F Whidborne (editors) Springer-Verlag, 2001.

2000

- P-46. C. Byrnes, **T.T. Georgiou**, and A. Lindquist, “A new approach to spectral estimation: A tunable high-resolution spectral estimator,” *IEEE Trans. on Signal Processing*, **48(11)**: 3189-3206, November 2000.
- P-45. **T.T. Georgiou**, “Signal Estimation via Selective Harmonic Amplification: MUSIC redux,” *IEEE Trans. on Signal Processing*, **48(3)**: 780-790, March 2000.
- P-44. **T.T. Georgiou** and M.C. Smith, “Robustness of a relaxation oscillator,” *International Journal of nonlinear and robust control*, **10**: 1005-1024, October 2000.
- P-43. C. I. Byrnes, **T.T. Georgiou** and A. Lindquist, “Advances in high-resolution spectral estimation,” *System Theory: Modeling, Analysis and Control*, T.E. Djaferis and I.C. Schick (editors), Kluwer Academic Publ., 2000, 167–179.

1999

- P-42. **T.T. Georgiou**, “The interpolation problem with a degree constraint,” *IEEE Trans. on Automatic Control*, **44(3)**: 631-635, March 1999.
- P-41. I. Fialho and **T.T. Georgiou**, “Worst-Case Analysis of Nonlinear Feedback Systems,” *IEEE Trans. on Automatic Control*, **44(6)**: 1180-96, June 1999.

1998

- P-40. **T.T. Georgiou** and A. Tannenbaum, “Switching Surfaces and Groebner Bases,” in *Lecture Notes in Control and Information Sciences, Learning, Control and Hybrid Systems*, Springer-Verlag, Yutaka Yamamoto and Shinji Hara, editors, vol. 241, pages 81-89, 1998.

1997

- P-39. **T.T. Georgiou** and M.C. Smith, “Robustness Analysis of Nonlinear Feedback Systems An Input-Output Approach,” *IEEE Trans. on Automatic Contr.* , **42(9)**: 1200-1221, September 1997.
- P-38. I.J. Fialho and **T.T. Georgiou**, ℓ_1 State-feedback control with a prescribed rate of exponential convergence, *IEEE Trans. on Automatic Contr.* , **42(10)**: 1476-1481, October 1997.
- P-37. **T.T. Georgiou**, M. Khammash, and A. Megretski, “On a large-gain theorem,” *Systems and Control letters*, **32(4)**: 231-234, December 1997.

1996

P-36. A. Teel, **T.T. Georgiou**, L. Praly, and E.D. Sontag, "Input-Output Stability," in *The Control Handbook*, CRC Press, pp. 895-908 1996.

1995

P-35. H. Dym, **T.T. Georgiou**, and M.C. Smith, "Explicit formulas for optimally robust controllers for delay systems," *IEEE Trans. on Automatic Contr.* , **40(4)**: 656-669, April 1995.

P-34. **T.T. Georgiou** and M.C. Smith, "Intrinsic difficulties in using the doubly-infinite time axis for input-output systems theory," *IEEE Trans. on Automatic Contr.* , **40(3)**: 516-518, March 1995.

P-33. I. Fialho and **T.T. Georgiou**, "On the \mathcal{L}_1 -norm of uncertain linear systems," *IEEE Trans. on Automatic Contr.* , **40(6)**: 1142-1147, June 1995.

1994

P-32. C. Chang and **T.T. Georgiou**, "Geometric aspects of the Caratheodory extension problem," *Linear Algebra and its Applications*, **203/4**: 209-251, 1994.

P-31. I. Fialho and **T.T. Georgiou**, "On Stability and performance of sampled-data systems subject to wordlength constraint" *IEEE Trans. on Automatic Contr.* , **39(12)**: 2476-2481, December 1994.

P-30. C. Shankwitz and **T.T. Georgiou**, "On the envelope of spectral power of stochastic processes," *IEEE Trans. on Information Theory*, **40(2)**: 584-588, 1994.

P-29. **T.T. Georgiou** and M. C. Smith, "Metric Uncertainty and Nonlinear Feedback Stabilization," in *Feedback Control, Nonlinear Systems, and Complexity*, B.A. Francis and A.R. Tannenbaum (Editors), Springer-Verlag, Lecture Notes in Control and Information Sciences, **202**, pp. 88-98, 1995.

1993

P-28. **T.T. Georgiou** and M.C. Smith, "Graphs, causality and stabilizability: linear, shift-invariant systems on $L_2[0, \infty)$," *Mathematics of Control, Signals and Systems*, **6(3)**: 195-223, 1993.

P-27. J.C. Doyle, **T.T. Georgiou**, and M.C. Smith, "The parallel projection operators of a nonlinear feedback system," *Systems and Control letters*, **20**: 79-85, 1993.

P-26. S. Buddie, **T.T. Georgiou**, Ümit Özgüner, and M.C. Smith, "Flexible Structure Experiments at JPL and WPAFB", *International Journal of Control*, **58(1)**: 1-19, 1993.

P-25. **T.T. Georgiou** and M.C. Smith, "Approximation in the gap metric: upper and lower bounds" *IEEE Trans. on Automatic Control*, **38(6)**: 946-951, 1993.

P-24. C. Foias, **T.T. Georgiou**, and M.C. Smith, "Robust stability of feedback systems: A geometric approach using the gap metric", *SIAM Journal on Control and Optimization*, **31(6)**: 1518-37, November 1993.

P-23. **T.T. Georgiou**, "Differential stability and robust control of nonlinear systems," *Mathematics of Control, Signals and Systems*, **6(4)**: 289-307, 1993.

P-22. **T.T. Georgiou** and M. C. Smith, "Topological Approaches to Robustness," *Lecture Notes in Control and Information Sciences*, **185**, pp. 222-241, Springer-Verlag, 1993.

1992

P-21. C. Chang and **T.T. Georgiou**, "On a Schur algorithm based approach to spectral factorization: Connection with the Riccati equation", *Linear Algebra and Applications* **171**: 233-247, 1992.

- P-20. **T.T. Georgiou** and M.C. Smith, “Robust stabilization in the gap metric: Controller design for distributed plants”, *IEEE Trans. on Automatic Control*, **37**: 1133-1143, August 1992.
- P-19. C.Foias, **T.T. Georgiou** and M.C. Smith, “Robust stabilization in the gap metric: a geometric approach,” in *Recent Advances in Mathematical Theory of Systems, Control, Networks and Signal Processing I*, ed. Kimura and Kodama, Mita Press, pp. 177-182, 1992.
- P-18. **T.T. Georgiou** and M.C. Smith, “Linear systems and robustness: a graph point of view,” in *Lecture Notes in Control and Information Sciences*, Springer-Verlag, **183**, pp. 114–121, 1992.

1990

- P-17. **T.T. Georgiou** and M.C. Smith, “Optimal robustness in the gap metric”, *IEEE Transactions on Automatic Control*, 35:673-686, June 1990.
- P-16. C. Shankwitz and **T.T. Georgiou**, “On the maximum entropy method for interval covariance sequences”, *IEEE Transactions on Acoustics, Speech, and Signal Processing*, 38:1815-1817, October 1990.
- P-15. C. Chang and **T.T. Georgiou** “The Schur algorithm: Connections with the Difference Riccati equation, the Chandrasekhar algorithm, and square-root filtering,” in *Signal Processing, Scattering and Operator Theory, and Numerical Methods*, Volume III, pp. 207-213, Birkhäuser, 1990.
- P-14. **T.T. Georgiou** and M.C. Smith, “Robust stabilization in the gap metric,” in *Control of Uncertain Systems*, ed. Hinrichsen and Martensson, Birkhauser, pp. 69–82, 1990.

1989

- P-13. **T.T. Georgiou**, “Computational aspects of spectral factorization and the tangential Schur algorithm”, *IEEE Trans. on Circuits and Systems*, 36(1): 103-108, January 1989.
- P-12. **T.T. Georgiou** and P.P. Khargonekar, “Spectral factorization of matrix valued functions using interpolation theory”, *IEEE Trans. on Circuits and Systems*, 36(4): 568-574, April 1989.
- P-11. **T.T. Georgiou** and M.C. Smith, “W-stability of feedback systems”, *Systems and Control Letters*, 13:271-277, November 1989.

1988

- P-10. **T.T. Georgiou**, “On the computation of the gap metric”, *Systems and Control Letters*, 11(4): 253-257, October 1988.
- P-9. **T.T. Georgiou**, “On a Schur-algorithm based approach to spectral factorization: State-space formulae”, *Systems and Control Letters*, 10(2): 123-129, February 1988.
- P-8. B.A. Francis and **T.T. Georgiou**, “Stability theory for Linear Time-Invariant Plants with Periodic Digital Controllers”, *IEEE Trans. on Automatic Control*, 33(9): 820-832, September 1988.
- P-7. A.M. Pascoal, P.P. Khargonekar, and **T.T. Georgiou**, “Pointwise Stabilizability of Families of Linear Time Invariant Plants”, *IEEE Trans. on Automatic Control*, 33(12): 1161-1165, December 1988.

1987

- P-6. P.P. Khargonekar, **T.T. Georgiou**, and A.M. Pascoal, “On the robust stabilizability of linear time-invariant plants with unstructured uncertainty”, *IEEE Trans. on Automatic Control*, AC-32: 201-207, March 1987.
- P-5. **T.T. Georgiou** and P.P. Khargonekar, “A constructive algorithm for sensitivity optimization of periodic systems”, *SIAM J. on Control and Optimization*, 25(2): 334-340, March 1987.

- P-4. E. Foufoula-Georgiou and **T.T. Georgiou**, “Interpolation of binary series based on discrete time Markov chain models”, *Water Resources Research*, 23(3): 515-518, March 1987.
- P-3. **T.T. Georgiou**, “Realization of power spectra from partial covariance sequences”, *IEEE Trans. on Acoustics, Speech, and Signal Processing*, AASP-35(4): 438-449, April 1987.
- P-2. **T.T. Georgiou** and P.P. Khargonekar, “Spectral factorization and Nevanlinna-Pick interpolation”, *SIAM J. on Control and Optimization*, 25(3): 754-766, May 1987.
- P-1. **T.T. Georgiou**, “A topological approach to Nevanlinna-Pick interpolation”, *SIAM J. on Mathematical Analysis*, 18(5): 1248-1260, September 1987.
- P-0. **T.T. Georgiou**, A.M. Pascoal, and P.P. Khargonekar, “On the robust stabilizability of uncertain linear time-invariant plants using nonlinear time-varying controllers”, *Automatica*, 23(5): 617-624, September 1987.

1986

- P-1. **T.T. Georgiou** and P.P. Khargonekar, “Linear fractional transformations and spectral factorization”, *IEEE Trans. on Automatic Control*, AC-31: 345-347, April 1986.

1983

- P-2. P.P. Khargonekar, **T.T. Georgiou**, and A.B. Ozgüler, “Skew prime polynomial matrices: the polynomial model approach”, *Linear Algebra and Applications*, 50, April 1983, pp. 403-435.

Magazine articles, and editorials

- ME-7. **T.T. Georgiou**, “Rudolf E. Kalman, In Memoriam,” *Trans. of the ASME, J. of Dynamic Systems Measurement and Control*, **140(3)**: 030101-1, March 2017. doi 10.1115/1.4038266
- ME-6. **T.T. Georgiou**, “To Rudolf E. Kalman: A personal Goodbye,” *IEEE Control Systems Magazine*, volume 37, number 2, pages 174-175, April 2017, doi 10.1109/MCS.2016.2643348
- ME-5. A. Antoulas, **T.T. Georgiou**, P.P. Khargonekar, A.B. Ozguler, E.D. Sontag, Y. Yamamoto, “A Tribute to Rudolf Kalman: His Research, Life, and Influence [Historical Perspectives],” *IEEE Control Systems Magazine*, **37 (2)**: 153, March 2017, doi 10.1109/MCS.2016.2643261.
- ME-4. A. Antoulas, **T.T. Georgiou**, P.P. Khargonekar, A.B. Özguler, E.D. Sontag and Y. Yamamoto, “Professor Rudolf E. Kalman [Obituary],” *IEEE Control Systems Magazine*, **37(1)**: 151-152, February 2017. doi 10.1109/MCS.2016.2621578
- ME-3. A. Antoulas, **T.T. Georgiou**, P.P. Khargonekar, A.B. Ozguler, E.D. Sontag, Y. Yamamoto, “Obituary for Professor Rudolf Emil Kalman,” *Automatica*, vol. 74, pages 370-371, 2016
dx.doi.org/10.1016/j.automatica.2016.09.039
- ME-2. **T.T. Georgiou**, A.R. Tannenbaum, Some Personal Reminiscences About Bruce A. Francis [Historical Perspectives], *IEEE Control Systems Magazine*, **38 (5)**: 93-95, 2018, doi 10.1109/MCS.2018.2851038
- ME-1. **T.T. Georgiou**, Reflections on the IEEE Control Systems Society Awards, *IEEE Control Systems Magazine*, **40 (12)**: 16-17, 2020, doi 10.1109/MCS.2020.3019148

Partial list of peer reviewed Conference Publications

- C-160. Mahmoud Abdelgalil and **T.T. Georgiou**, Control of the State-transition via State-Feedback, **IEEE Inter. Conf. on Decision and Control**, December 2025
- C-159. Ibrahim K. Ozaslan, Wuwei Wu, Jie Chen, **T.T. Georgiou**, and Mihailo R. Jovanović, Automated algorithm design for convex optimization problems with linear equality constraints, **IEEE Inter. Conf. on Decision and Control**, December 2025
- C-158. Asmaa Eldesoukey, Mahmoud Abdelgalil, **T.T. Georgiou**, Collective steering: Tracer-informed dynamics, **IEEE Inter. Conf. on Decision and Control**, December 2025, arxiv.org/abs/2505.01975
- C-157. R Sabbagh, OM Miangolarra, **T.T. Georgiou**, Regulation of a continuously monitored quantum harmonic oscillator with inefficient detectors, **IEEE Inter. Conf. on Decision and Control**, December 2025, arXiv preprint [arXiv:2503.15694](https://arxiv.org/abs/2503.15694)
- C-156. Wuwei Wu, Jie Chen, Mihailo R. Jovanović, and **T.T. Georgiou**, Frequency-Domain Synthesis of Implicit Algorithms, **2025 American Control Conference (ACC)** 10.23919/ACC63710.2025.11107849
- C-155. O. M. Miangolarra, A. Taghvaei and **T.T. Georgiou**, "Minimal entropy production in anisotropic temperature fields," 2023 American Control Conference (ACC), San Diego, CA, USA, 2023, pp. 616-621 doi: 10.23919/ACC55779.2023.10156443.
- C-154. W. Wu, S. Zhang, Z. Li, J. Chen and **T.T. Georgiou**, "On Decomposition and Convergence of Distributed Optimization Algorithms," 2024 American Control Conference (ACC), Toronto, ON, Canada, 2024, pp. 3391-3396, doi: 10.23919/ACC60939.2024.10644799.
- C-153. Anqi Dong, Can Chen, T.T. Georgiou, Network Learning with Directional Sign Patterns, arxiv.org/abs/2403.14915, 2024 IEEE 63rd Conference on Decision and Control (CDC), 3924-3929, Milan, December 2024. DOI: 10.1109/CDC56724.2024.10886518
- C-152. Asmaa Eldesoukey, Olga Movilla Miangolarra, and **T.T. Georgiou**, An excursion onto Schrödinger's bridges: Stochastic flows with spatio-temporal marginals, IEEE Conference on Decision and Control (CDC), Milan, December 2024.
- C-151. Karimi, Amirhossein, and **T.T. Georgiou**. "Data-driven approximation of the Perron-Frobenius operator using the Wasserstein metric." **IIFAC-PapersOnLine**, vol. 55, no. 30 (2022): 341-346. doi.org/10.1016/j.ifacol.2022.11.076.
- C-150. Q. Mao, Y. Xu, J. Chen and **T.T. Georgiou**, "Implementation-Oriented Filtered PID Control: Robustness Margins," 2022 IEEE 61st Conference on Decision and Control (CDC), Cancun, Mexico, 2022, pp. 5511-5516, doi: 10.1109/CDC51059.2022.9993402.
- C-149. L. Gaudiesius, **T.T. Georgiou**, Neil Edward Houghton, Malcolm C. Smith Mechanical Realisation of a Lossless Adjustable Two-Port Transformer, MTNS 2022
- C-148. A. Taghvaei, P.G. Mehta, **T.T. Georgiou** Optimality vs Stability Trade-off in Ensemble Kalman Filters, MTNS 2022
- C-147. Y. Chen, **T.T. Georgiou**, and M. Pavon Lossy Schrödinger Bridges: The Most Likely Transport between Unbalanced Marginals, MTNS-2022
- C-146. Qi Mao, Yong Xu, Jie Chen, **T.T. Georgiou**, Implementation-Oriented Filtered PID Control: Robustness Margins, *60th IEEE Conference on Decision and Control*
- C-145. A. Karimi, and **T.T. Georgiou**, The Challenge of Small Data: Dynamic Mode Decomposition, Redux, *60th IEEE Conference on Decision and Control*, pp. 2276-2281, 2021, doi 10.1109/CDC45484.2021.9683686

- C-144. Qi Mao, Yong Xu, Jianqi Chen, Jie Chen, and **T.T. Georgiou**, Maximal Gain and Phase Margins by PID Control, *60th IEEE Conference on Decision and Control*, pp. 1820-1825, 2021, doi 10.1109/CDC45484.2021.9683241
- C-143. A. Dong, A. Taghvaei, **T.T. Georgiou**, Lasso formulation of the shortest path problem, *59th IEEE Conference on Decision and Control*, pp. 402-407, 2020, doi 10.1109/CDC42340.2020.9303909
- C-142. R. Fu, O.M. Miangolarra, A. Taghvaei, Y. Chen, **T.T. Georgiou**, Harvesting energy from a periodic heat bath, *59th IEEE Conference on Decision and Control*, pp. 3034-3039, 2020, doi 10.1109/CDC42340.2020.9304271
- C-141. Z. Askarzadeh, R. Fu, A. Halder, Y. Chen, **T.T. Georgiou**, Opinion Dynamics over Influence Networks, 2019 American Control Conference (ACC), Proceedings of, pages 1873 - 1878, 2019, doi 10.23919/ACC.2019.8815341
- C-140. D. Alpag0, Y. Chen, **T.T. Georgiou**, M. Pavon, Optimal steering for non-Markovian Gaussian processes, 2019 IEEE 58th Conference on Decision and Control (CDC), Proceedings of the, pages 2556 - 2561, December 2019. 10.1109/CDC40024.2019.9029641
- C-139. A. Halder and **T.T. Georgiou**, Proximal Recursion for the Wonham Filter, 2019 IEEE 58th Conference on Decision and Control (CDC), Proceedings of, pages 660 - 665, December 2019, doi 10.1109/CDC40024.2019.9030018
- C-138. Y. Chen, **T.T. Georgiou**, and M. Pavon, Covariance steering in zero-sum linear-quadratic two-player differential games. In 2019 IEEE 58th Conference on Decision and Control (CDC) (pp. 8204-8209). IEEE.
- C-137. Y. Chen, **T.T. Georgiou**, M. Pavon and A. Tannenbaum, A relaxed maximum entropy approach to robust network routing, *The 23rd International Symposium on Mathematical Theory of Networks and Systems, MTNS 2018*, http://mtns2018.ust.hk/proceedings_online.html
- C-136. Y. Chen, **T.T. Georgiou**, M Pavon, Ruelle-Bowen continuous-time random walk, *The 23rd International Symposium on Mathematical Theory of Networks and Systems, MTNS 2018* http://mtns2018.ust.hk/proceedings_online.html, arXiv:1802.04436
- C-135. Y. Chen, **T.T. Georgiou**, A. Tannenbaum, Optimal transport for Gaussian mixture model, *The 23rd International Symposium on Mathematical Theory of Networks and Systems, MTNS 2018* http://mtns2018.ust.hk/proceedings_online.html
- C-134. Y. Chen, **T.T. Georgiou**, M. Pavon, Steering the distribution of agents in mean-field games, Proceedings of the 57th IEEE Conference on Decision and Control, 2018, 10.1109/CDC.2018.8619807
- C-133. A. Halder and **T.T. Georgiou**, "Gradient Flows in Filtering and Fisher-Rao Geometry." In 2018 American Control Conference (ACC), pp. 4281-4286. IEEE, 2018, doi 10.23919/ACC.2018.8431003
- C-132. A. Zare, N.K. Dhingra, M.R. Jovanović, and **T.T. Georgiou**, "Structured covariance completion via proximal algorithms." In 2017 IEEE 56th Conference on Decision and Control (CDC), pp. 3775-3780. IEEE, 2017.
- C-131. A. Halder and **T.T. Georgiou**, "Gradient flows in uncertainty propagation and filtering of linear Gaussian systems." In 2017 IEEE 56th Conference on Decision and Control (CDC), pp. 3081-3088. 2017, doi 10.1109/CDC.2017.8264109
- C-130. R. Sandhu, S. Tannenbaum, **T.T. Georgiou**, A. Tannenbaum, Geometry of Correlation Networks for Studying the Biology of Cancer, IEEE 55th Conference on Decision and Control (CDC), Las Vegas, USA, pp. 2501-2506, 2016
- C-129. Y. Chen, **T.T. Georgiou**, M. Pavon and A. Tannenbaum, A new approach to robust transportation over networks, IEEE 55th Conference on Decision and Control (CDC), Las Vegas, USA, pp. 7623-7628, 2016 10.1109/CDC.2016.7799447

- C-128. H. Farooq, Y. Chen, **T.T. Georgiou**, and C. Lenglet, Some geometric ideas for feature enhancement of diffusion tensor fields, IEEE 55th Conference on Decision and Control (CDC), Las Vegas, USA, pp. 3856-3861, 2016, 10.1109/CDC.2016.7798851
- C-127. A. Zare, M. Jovanovic and **T.T. Georgiou**, Perturbation of System Dynamics and the Covariance Completion Problem, IEEE 55th Conference on Decision and Control (CDC), Las Vegas, USA, pp. 7036- 7041, 2016. 10.1109/CDC.2016.7799353
- C-126. Y. Chen, Sei Zhen Khong, **T.T. Georgiou**, On the definiteness of graph Laplacians with negative weights: Geometrical and passivity-based approaches, Proceedings of the American Control Conference, pages 2488–2493, 2016.
- C-125. Y. Chen, **T.T. Georgiou**, and M. Pavon, Optimal steering of Ensembles, Proceedings of the 22nd International Symposium on the Mathematical Theory of Networks and Systems, Minneapolis, 2016, <http://hdl.handle.net/11299/181518> isbn: 978-1-5323-1358-5
- C-124. Y. Chen, **T.T. Georgiou**, and M. Pavon, Noncommutative Sinkhorn theorem and generalizations, Proceedings of the 22nd International Symposium on the Mathematical Theory of Networks and Systems <http://hdl.handle.net/11299/181518> isbn: 978-1-5323-1358-5
- C-123. Y. Chen, **T.T. Georgiou**, and M. Pavon, Stochastic control, entropic interpolation and gradient flows on Wasserstein product spaces, Proceedings of the 22nd International Symposium on the Mathematical Theory of Networks and Systems, arxiv.org/abs/1601.04891 <http://hdl.handle.net/11299/181518> isbn: 978-1-5323-1358-5
- C-122. R. Sandhu, **T.T. Georgiou**, A. Tannenbaum, Laplacian Global Similarity of Networks, Proceedings of the 22nd International Symposium on the Mathematical Theory of Networks and Systems <http://hdl.handle.net/11299/181518> isbn: 978-1-5323-1358-5
- C-121. L. Ning, R. Sandhu, **T.T. Georgiou**, and A. Tannenbaum, Matricial Wasserstein and Unsupervised Tracking, Proceedings of the 22nd International Symposium on the Mathematical Theory of Networks and Systems, <http://hdl.handle.net/11299/181518> isbn: 978-1-5323-1358-5
- C-120. M. Pouryahya, R. Elkin, R.I Sandhu S. Tannenbaum, **T.T. Georgiou**, A. Tannenbaum, “Bakry-Émery Ricci Curvature on Weighted Graphs with Applications to Biological Networks,” Proceedings of the 22nd International Symposium on the Mathematical Theory of Networks and Systems <http://hdl.handle.net/11299/181518> isbn: 978-1-5323-1358-5
- C-119. A. Zare and Y. Chen and M. R. Jovanović and **T.T. Georgiou**, An alternating minimization algorithm for structured covariance completion problems, Proceedings of the 22nd International Symposium on the Mathematical Theory of Networks and Systems, <http://hdl.handle.net/11299/181518> isbn: 978-1-5323-1358-5
- C-118. A. Zare, M.R. Jovanović, and **T.T. Georgiou**, “Alternating direction optimization algorithms for covariance completion problems,” Proceedings of the American Control Conference, 6 pages, to appear, Summer 2015.
- C-117. Y. Chen, **T.T. Georgiou**, and M. Pavon, “Optimal steering of inertial particles diffusing anisotropically with losses,” Proceedings of the American Control Conference, 6 pages, to appear, 2015 10.1109/ACC.2015.7170905
- C-116. A. Zare, M.R. Jovanović, and **T.T. Georgiou**, Low-Complexity Stochastic Modeling of Turbulent Flows, SIAM conference, Paris, 2015
- C-115. A. Zare, Y. Chen, M.R. Jovanović, and **T.T. Georgiou**, Low-complexity Modeling of Partially Available Second-order Statistics via Matrix Completion, SIAM conference, Paris, 2015

- C-114. Y. Chen, **T.T. Georgiou**, M. Pavon, On Cooling of Stochastic Oscillators, SIAM conference, Paris, 2015
- C-113. Y. Chen, **T.T. Georgiou**, and M. Pavon, Optimal control of the state statistics for a linear stochastic system, Proceedings of the IEEE Conf. on Decision and Control, 2015
- C-112. Y. Chen, **T.T. Georgiou**, and M. Pavon, Steering state statistics with output feedback, Proceedings of the IEEE Conf. on Decision and Control, 2015
- C-111. A. Zare, M.R. Jovanović, and **T.T. Georgiou**, Completion of partially known turbulent flow statistics, American Control Conference, June 2014.
- C-110. Y. Chen and **T.T. Georgiou**, The flatness of power spectral zeros and their significance in quadratic estimation, Proceedings of the IEEE Conf. on Decision and Control, 2014, 6 pages.
- C-109. L. Ning and **T.T. Georgiou**, Metrics for Matrix-valued Measures via test functions, Proceedings of the IEEE Conf. on Decision and Control, 2014, 6 pages.
- C-108. A. Zare, M.R. Jovanović, and **T.T. Georgiou**, Completion of partially known turbulent flow statistics via convex optimization, Center for Turbulence Research, Proceedings of the Summer Program 2014, pages 345-354.
- C-107. Y. Chen, J. Karlsson, and **T.T. Georgiou**, The rôle of past and future in estimation and the reversibility of stochastic processes, Proceedings of the Intern. Symposium on the Math. Theory of Networks and Systems, pages: 343–346, July 2014.
- C-106. **T.T. Georgiou** and Anders Lindquist, On time-reversibility of linear stochastic models, Proceedings of the 19th World Congress of the Intern. Fed. of Automatic Control, pp. 10403-10408, South Africa, August 2014.
- C-105. A. Zare and M. R. Jovanović and **T.T. Georgiou**, Completion of partially known turbulent flow statistics via convex optimization, Center for Turbulence Research, Stanford University/NASA, Proceedings of the 2014 Summer Program, pp. 345-354, 2014.
- C-104. L. Ning and **T.T. Georgiou**, The Wasserstein metric in Factor Analysis, Proceedings of the 2013 SIAM Conference on Control and Its Applications, San Diego, California, 8 pages, July 8-10, 2013.
- C-103. L. Ning, **T.T. Georgiou**, and A. Tannenbaum, Matrix-valued Monge-Kantorovich Optimal Mass Transport, IEEE Conf. on Decision and Control, 6 pages, 2013.
- C-102. F. Lin, M. Jovanović, **T.T. Georgiou**, An ADMM algorithm for matrix completion, IEEE Conf. on Decision and Control, 6 pages, 2013.
- C-101. Y. Chen, M. Jovanovic, **T.T. Georgiou**, State covariances and the matrix completion problem, IEEE Conf. on Decision and Control, 6 pages, 2013.
- C-100. X. Jiang, L. Ning and **T.T. Georgiou**, “Geometric methods for structured covariance estimation,” American Control Conf., pp. 1877-1882, 2012.
- C-99. J. Karlsson and **T.T. Georgiou**, Metric Uncertainty for Spectral Estimation based on Nevanlinna-Pick Interpolation, Intern. Symposium on the Math. Theory of Networks and Systems, 8 pages, Melbourne 2012.
- C-98. L. Ning, X. Jiang and **T.T. Georgiou**, Geometric tools for the estimation of structured covariances, Intern. Symposium on the Math. Theory of Networks and Systems, Melbourne 2012.
- C-97. L. Ning, X. Jiang and **T.T. Georgiou**, Metrics for multivariate power spectra, IEEE Conf. on Decision and Control, pp. 4727-4732, 2012.

- C-96. **T.T. Georgiou** and A. Lindquist, Revisiting the Separation Principle in Stochastic Control, IEEE Conf. on Decision and Control, pp. 1459-1465, 2012.
- C-95. L. Ning and **T.T. Georgiou**, Sparse factor analysis via likelihood and ℓ_1 -regularization, IEEE Conference on Decision and Control, pp. 5188-5192, December 2011.
- C-94. L. Ning, **T.T. Georgiou**, and A. Tannenbaum, "High resolution analysis via sparsity-inducing techniques: spectral lines in colored noise," Intern. Symposium on Mathematical Theory of Networks and Systems, Hungary, July 2010.
- C-93. D. Rudoy and **T.T. Georgiou**, Nonstationary Processes and Spectral Distances, Intern. Symposium on Mathematical Theory of Networks and Systems, Hungary, July 2010.
- C-92. F. Carli and **T.T. Georgiou**, "On the Covariance Completion Problem under a Circulant Structure," Intern. Symposium on Mathematical Theory of Networks and Systems, Hungary, vol. 5(9), July 2010.
- C-91. P. Stoica, L. Du, J. Li, **T.T. Georgiou**, "A New Method for Moving-Average Parameter Estimation," 44th Asilomar Conference on Signals, Systems and Computers, Asilomar Conference Grounds, Pacific Grove, California, pages 1817–1820, November 2010.
- C-90. M. Jovanovic and **T.T. Georgiou**, "Reproducing second order statistics of turbulent flows using linearized Navier-Stokes equations with forcing," Bulletin of the American Physical Society, 63rd Annual Meeting of the APS Division of Fluid Dynamics, vol. 55(16), (abstract), 2010.
- C-89. D. Li, N. Hovakimyan, **T.T. Georgiou**, "Robustness of L1 Adaptive Controllers in the Gap Metric in the Presence of Nonzero Initialization," IEEE Conference on Decision and Control, Atlanta, December 2010, pages 2723 - 2728.
- C-88. D. Li, N. Hovakimyan, **T.T. Georgiou**, "Robustness of L1 adaptive controllers in the gap metric," American Control Conference, 2010, pages 3247 - 3252.
- C-87. L. Ning, **T.T. Georgiou**, and A. Tannenbaum, Separation of system dynamics and line spectra via sparse representation, IEEE Conference on Decision and Control, Atlanta, December 2010, pages 473 - 478.
- C-86. E. Tannenbaum, **T.T. Georgiou**, A. Tannenbaum, Signals & Control Aspects of Optimal Mass Transport and the Boltzmann Entropy, IEEE Conference on Decision and Control, Atlanta, pp. 1885 - 1890, December 2010.
- C-85. K. Georgiou and **T.T. Georgiou**, "Graceful switching in hybrid models," *48th IEEE Conference on Decision and Control*, Shanghai, China, December 2009.
- C-84. R. Sandhu, **T.T. Georgiou**, and A. Tannenbaum, "A New Distribution Metric for Image Segmentation," SPIE Medical Imaging, 2008.
- C-83. R. Sandhu, **T.T. Georgiou**, and A. Tannenbaum, "Tracking with a New Distribution Metric in a Particle Filtering Framework," IS&T/SPIE 20th Annual Symposium on Electronic Imaging, pages 6813, International Society for Optical Engineering, 2008.
- C-82. J. Karlsson, M.S. Takyar, and **T.T. Georgiou**, "Transport metrics for power spectra," *47th IEEE Conference on Decision and Control*, Cancun, Mexico, December 2008.
- C-81. J. Karlsson, **T.T. Georgiou**, and A.G. Lindquist, "Weight Selection for Gap Robustness with Degree-Constrained Controllers," *47th IEEE Conference on Decision and Control*, Cancun, Mexico, December 2008.
- C-80. **T.T. Georgiou** and M.C. Smith, "Feedback Control and the Arrow of Time," *47th IEEE Conference on Decision and Control*, Cancun, Mexico, December 2008.

- C-79. X. Jiang, Z-Q Luo, and **T.T. Georgiou**, "Spectral geodesics and tracking," *47th IEEE Conference on Decision and Control*, Cancun, Mexico, December 2008.
- C-78. M.S. Takyar and **T.T. Georgiou**, "On the Jordan structure of the spectral-zero dynamics in multivariable analytic interpolation," *47th IEEE Conference on Decision and Control*, Cancun, Mexico, December 2008.
- C-77. M.S. Takyar and **T.T. Georgiou**, "Analytic interpolation with degree constraint: the multivariable case," Proc. of the 2007 American Control Conference, New York, July 2007.
- C-76. **T.T. Georgiou**, "What is a natural notion of distance between power spectral density functions?," Proceedings of the 2007 European Control Conference, Kos, Greece, July 2007.
- C-75. M.S. Takyar and **T.T. Georgiou**, "The fractional integrator as a control design element," Proceedings of the 2007 46th IEEE Conference on Decision and Control, pages 239–244, New Orleans, December 2007.
- C-74. **T.T. Georgiou**, "Singular decomposition of state covariances," Proceedings of the 2006 American Control Conference, 6 pp., June 2006.
- C-73. M.S. Takyar, A.N. Amini, and **T.T. Georgiou**, "Sensitivity shaping with degree constraint via semidefinite programming," Proceedings of the 2006 American Control Conference, June 2006.
- C-72. M.S. Takyar, A.N. Amini, and **T.T. Georgiou**, "Spectral analysis from multi-rate observations: Itakura-Saito based approximation of power spectra and Capon-like spectral envelopes," Proceedings of the Fourth IEEE Workshop on Sensor Array and Multi-channel Processing (SAM-2006), pages 521-525, Waltham, Massachusetts, July 2006. DOI: 10.1109/SAM.2006.1706188
- C-71. M.S. Takyar, A.N. Amini, and **T.T. Georgiou**, "A Homotopy Approach for Multirate Spectrum Estimation," Proceedings of the 2006 IEEE International Conf. on Acoustics, Speech and Signal Processing.
- C-70. **T.T. Georgiou**, "The error variance of the optimal linear smoother is the harmonic mean of the power spectral density," Proc. 45th IEEE Conference on Decision and Control, December 2006.
- C-69. J. Karlsson, **T.T. Georgiou**, and A. Lindquist, "The Inverse Problem of Analytic Interpolation with Degree Constraint," Proc. 45th IEEE Conference on Decision and Control, December 2006.
- C-68. M.S. Takyar, A.N. Amini, and **T.T. Georgiou**, "Weight selection in Interpolation with a Dimensionality Constraint," Proc. 45th IEEE Conference on Decision and Control, December 2006.
- C-67. **T.T. Georgiou** and A. Lindquist, "Two Alternative Views on Control Design with Degree Constraint," Proc. 44th IEEE Conference on Decision and Control, December 2005, pp. 3645-3650.
- C-66. J. Karlsson and **T.T. Georgiou**, "Signal analysis, moment problems & uncertainty measures," Proc. 44th IEEE Conference on Decision and Control, December 2005, pp. 5710 - 5715.
- C-65. **T.T. Georgiou**, "Relative Entropy and Moment Problems," Proc. 44th IEEE Conference on Decision and Control, December 2005, pp. 4397 - 4403.
- C-64. A. Nasiri Amini, E. Ebbini, and **T.T. Georgiou**, "Noninvasive tissue temperature estimation via state-covariance spectral estimation," *Proc. 10th IEEE DSP workshop*, Taos, NM, August 2004.
- C-63. **T.T. Georgiou** and A. Lindquist, "Kullback-Leibler approximation of spectral density functions," Proceedings of the 42st IEEE Conference on Decision and Control, December 2003.
- C-62. A. Nasiri Amini and **T.T. Georgiou**, "Statistical analysis of state-covariance subspace-estimation methods," Proceedings of the 41st IEEE Conference on Decision and Control, pp. 2633 -2638, December 2002.

- C-61. S. Varigonda, **T.T. Georgiou**, and M. Daoutides, "A flatness based algorithm for optimal periodic control problems," Proceedings of the American Control Conference, pp. 831-836, June 2001.
- C-60. **T.T. Georgiou**, "Spectral analysis and analytic interpolation," Proceedings of the 40th IEEE Conf. on Decision and Control, pp. 4800-4805, December 2001.
- C-59. **T.T. Georgiou** and M.C. Smith, "Robustness of a relaxation oscillator," Proceedings of the 39th IEEE Conf. on Decision and Control, pp. 246-250, Sydney, December 2000.
- C-58. S. Varigonda and **T.T. Georgiou**, "Global stability of periodic orbits in relay feedback systems," Proceedings of the 39th IEEE Conf. on Decision and Control, pp. 3843 -3847, Sydney, December 2000.
- C-57. **T.T. Georgiou**, and A. Tannenbaum, "High Resolution Sensing and Anisotropic Segmentation for SAR Imagery," Proceedings of the 39th IEEE Conf. on Decision and Control, vol. 5, pp. 4324-4326, Sydney, December 2000.
- C-56. **T.T. Georgiou**, "Subspace analysis of covariances," Proceedings of the 2000 IEEE International Conference on Acoustics, Speech, and Signal Processing. Proceedings (Cat. No. 00CH37100), volume 1, pages 269-272, Istanbul, June 2000.
- C-55. **T.T. Georgiou**, "Co-invariant subspaces in array processing," Proceedings of the 2000 international workshop on the Mathematical Theory of Networks and Systems, Perpignon, France, June 2000.
- C-54. **T.T. Georgiou**, "Analytic interpolation with degree constraint," Proceedings of the 2000 international workshop on the Mathematical Theory of Networks and Systems, *plenary lecture*, Perpignon, France, June 2000.
- C-53. I. Fialho and **T.T. Georgiou**, "Optimal Finite Wordlength Digital Controller Realization," Proceedings of the 1999 American Control Conference, June 1999.
- C-52. **T.T. Georgiou**, "A canonical decomposition for state-covariance matrices with application to MUSIC," Proceedings of the 1999 IEEE Conf. on Decision and Control, **5**: 5082-5087, Phoenix, December 1999.
- C-51. U. Walther, **T.T. Georgiou**, and A. Tannenbaum, "Computational Algebraic Geometry and Switching Surfaces in Optimal Control," Proceedings of the 1999 IEEE Conf. on Decision and Control, Phoenix, December 1999.
- C-50. C.I. Bymes, **T.T. Georgiou**, and A. Lindquist, "Analytic interpolation with degree constraint: A constructive theory with applications to control and signal processing," doi: 10.1109/CDC.1999.832922 1999, pp. 982 - 988 vol.1 .
- C-49. S. Varigonda and **T.T. Georgiou**, "Periodic oscillations in systems with hysteresis," Proceedings of the 38th IEEE Conference on Decision and Control (Cat. No. 99CH36304), volume 4, pages 3837-3842, Phoenix, December 1999.
- C-48. **T.T. Georgiou**, "The interpolation problem with degree constraint," Proceedings of the 1998 Conf. on Decision and Control, December 1998.
- C-47. **T.T. Georgiou** and M.C. Smith, "Biased norms and metric uncertainty for nonlinear feedback systems," Proceedings of the 1997 IEEE Conf. on Decision and Control, pages 642-643, December 1997.
- C-46. **T.T. Georgiou**, "Entrainment and synchrony of relaxation oscillations," Proceedings of the 36th IEEE Conference on Decision and Control, volume 2, pages 1166-1156, December 1997.
- C-45. **T.T. Georgiou** and M.C. Smith, "Robustness Analysis of Nonlinear Feedback Systems," Proceedings of the 1996 IEEE Conf. on Decision and Control, Kobe, Japan, December 1996.

- C-44. I. Fialho and **T.T. Georgiou**, "On the \mathcal{L}_1 -norm of uncertain linear systems," Proceedings of the 1995 American Control Conference.
- C-43. I. Fialho and **T.T. Georgiou**, "Robustness and Performance of Nonlinear Feedback Systems," Proceedings of the annual Allerton Conference on Communication, Control, and Computing, volume 33, pages 845–852, 1995.
- C-42. I. Fialho and **T.T. Georgiou**, " \mathcal{L}_1 state-feedback control with a prescribed rate of exponential convergence," Proceedings of the 1995 American Control Conference.
- C-41. A. Megretski, M. Khammash, and **T.T. Georgiou**, "A large-gain theorem," Proceedings of the 1995 American Control Conference.
- C-40. **T.T. Georgiou** and M.C. Smith, "Distance Measures for Uncertain Nonlinear Systems," Proceedings of the 1995 European Control Conference, Rome, November 1995.
- C-39. I. Fialho and **T.T. Georgiou**, "A variational approach to L_∞ performance of nonlinear systems" Proceedings of the 1995 IEEE Conf. on Decision and Control, pp. 823-828, December 1995.
- C-38. **T.T. Georgiou** and M.C. Smith, "Remarks on robustness of nonlinear systems," Proceedings of the 1995 IEEE Conf. on Decision and Control, volume 2, pp. 1662-1663, December 1995.
- C-37. **T.T. Georgiou**, "Remarks on Differential stability of nonlinear systems," Proceedings of the 1994 IEEE Conf. on Decision and Control. December 1994.
- C-36. **T.T. Georgiou** and M.C. Smith, "Intrinsic difficulties in using the doubly-infinite time axis for input-output systems theory," Proceedings of the 1994 IEEE Conf. on Decision and Control.
- C-35. H. Dym, **T.T. Georgiou**, and M.C. Smith, Explicit formulas for optimally robust controllers for delay systems, Systems and Networks: Mathematical Theory and Applications, Proceedings of the MTNS-93, Regensburg, August 2–6, 1993, Math. Research, vol. 79, Akademie Verlag, pp. 663–666.
- C-34. I. Fialho and **T.T. Georgiou** "On stability and performance of sampled-data systems subject to wordlength constraint" Proceedings of the 1993 IEEE Conf. on Decision and Control, San Antonio, Texas, December 1993, pp. 309-14.
- C-33. C.Chang and **T.T. Georgiou**, "A note on the Nevanlinna-Schur algorithm with real coefficients," Proceedings of the 1993 IEEE Conf. on Decision and Control, San Antonio, Texas, December 1993, pp. 2181-2.
- C-32. H. Dym, **T.T. Georgiou**, and M.C. Smith, "Direct design of optimal controllers for delay systems," Proceedings of 32nd IEEE Conference on Decision and Control, pages 3821–3823, San Antonio, Texas, December 1993.
- C-31. **T.T. Georgiou**, "Differential stability and robust control of nonlinear systems," Proceedings of the 1993 IEEE Conf. on Decision and Control, San Antonio, Texas, December 1993, pp. 984-9.
- C-30. **T.T. Georgiou**, C. Shankwitz and M.C. Smith, "Identification of linear systems: a stochastic approach based on the graph," Proceedings of the 1992 American Control Conference, Chicago, June 1992, pp. 307-312.
- C-29. S. Buddie, **T.T. Georgiou**, Ümit Özgüner and M.C. Smith, Flexible structure experiments at JPL and WPAFB, Proceedings of the 1992 American Control Conference, Chicago, June 1992, pp. 1675-1680.
- C-28. C.Chang and **T.T. Georgiou**, Spectral factorization and Nevanlinna–Pick interpolation: State–space formulae, Proceedings of the 1992 IEEE Conf. on Decision and Control, Tucson, Arizona, pp. 437-442, December 1992.

- C-27. J.C. Doyle, **T.T. Georgiou**, and M.C. Smith, The parallel projection operators of a nonlinear feedback system, Proceedings of the 1992 IEEE Conf. on Decision and Control, Tucson, Arizona, December 1992, pp. 1050–1054.
- C-26. **T.T. Georgiou** and M.C. Smith, “Graphs, causality and stabilizability: linear, shift-invariant systems on $L_2[0, \infty)$,” Proceedings of the 1992 IEEE Conf. on Decision and Control, Tucson, Arizona, December 1992, pp. 1024–1029.
- C-25. C. Shankwitz and **T.T. Georgiou**, “On the envelope of spectral power of stochastic processes,” Proceedings of the 1991 American Control Conference, June 1991.
- C-24. C. Chang and **T.T. Georgiou**, “On a Schur algorithm for spectral factorization: the general case,” Proceedings of the 1991 American Control Conference, June 1991.
- C-23. **T.T. Georgiou**, and M.C. Smith, “Upper and lower bounds for approximation in the gap metric,” Proceedings of the 1991 IEEE Conf. on Decision and Control, Brighton, U.K., December 1991, pp. 2262–2267.
- C-22. M. Englehart, **T.T. Georgiou**, and M.C. Smith, “A weighted gap design-study for the space station,” Proceedings of the 1991 IEEE Conf. on Decision and Control, Brighton, U.K., December 1991, pp. 2372–2374.
- C-21. C. Shankwitz and **T.T. Georgiou**, “Maximum entropy identification and min-max optimal prediction,” Proceedings of the 1991 IEEE Conf. on Decision and Control, Brighton, U.K., December 1991, pp. 617–622.
- C-20. T.T. Georgiou and M.C. Smith, “Optimal robustness in the gap metric,” Proceedings of the 11th IFAC World Congress, Tallinn, Estonia, USSR, August 1990.
- C-19. C.Foias, **T.T. Georgiou**, and M.C. Smith, “Geometric techniques for robust stabilization of linear time-varying systems,” Proceedings of the 1990 IEEE Conf. on Decision and Control, pp. 2868–2873, Hawaii, December 1990.
- C-18. **T.T. Georgiou** and M.C. Smith, “Robust stabilization in the gap metric: Controller design for distributed plants,” Proceedings of the 1990 American Control Conf., San Diego, CA, pp. 1570–2009, May 1990.
- C-17. **T.T. Georgiou** and M.C. Smith, “Robust control of feedback systems with combined plant and controller uncertainty,” Proceedings of the 1990 American Control Conf., San Diego, CA, pp. 2009–2013, May 1990.
- C-16. **T.T. Georgiou** and M.C. Smith, “Optimal robustness in the gap metric,” Proceedings of the 1989 IEEE Conf. on Decision and Control, Tampa, FL, pp. 2331–2336, December 1989.
- C-15. C. Foias, A. Tannenbaum, D. Enns, **T.T. Georgiou**, M. Jackson and B. Schipper, “Uniformly optimal control for nonlinear systems,” Proceedings of the 1989 IEEE Conf. on Decision and Control, Tampa, FL, pp. 986–989, December 1989.
- C-14. **T.T. Georgiou** “On the degeneracy of Toeplitz matrices having a rational symbol,” 1989 International Symposium on the Math. Theory of Networks and Systems, Amsterdam, The Netherlands, *abstract*, June 1989.
- C-13. **T.T. Georgiou**, “On the computation of the gap metric,” Proceedings of the 1988 IEEE Conf. on Decision and Control, pp. 1360–1361, Austin, TX, December 1988.
- C-12. B.A. Francis and **T.T. Georgiou**, “Stability theory for Linear Time-Invariant Plants with Periodic Digital Controllers,” Proceedings of the 1988 American Control Conference, pp. 1225–1231, Atlanta, GA, June 1988.
- C-11. **T.T. Georgiou**, “Computational aspects of spectral factorization and the tangential Schur algorithm,” Proceedings of the 1987 IEEE Conf. on Decision and Control, pp. 805–810, Los Angeles, CA, December 1987.

- C-10. A.M. Pascoal, **T.T. Georgiou**, and P.P. Khargonekar, "Pointwise stabilizability of linear time invariant plants with unstructured uncertainty," Proceedings of the 1987 IEEE Conf. on Decision and Control, pp. 895-899, Los Angeles, CA, December 1987.
- C-9. **T.T. Georgiou**, "Spectral factorization of matrix-valued functions using interpolation theory: State-space formulae," 1987 International symposium on the Mathematical Theory of Networks and Systems, Phoenix, AZ, *Linear Circuits Systems and Signal Processing: Theory and Application*, pp. 525-532, North-Holland, 1988.
- C-8. **T.T. Georgiou**, A.M. Pascoal, and P.P. Khargonekar, "On the robust stabilizability of uncertain linear time invariant plants using nonlinear time varying controllers," Proceedings of the 1987 American Control Conference, pp. 904-909, June 1987.
- C-7. P.P. Khargonekar, **T.T. Georgiou**, and A.M. Pascoal, "Robust stabilizability of linear time-invariant plants: Nonlinear time-varying controllers," Proceedings of the 1986 IEEE Conf. on Decision and Control, Athens, Greece, pp. 832-837, December 1986.
- C-6. **T.T. Georgiou** and P.P. Khargonekar, "Spectral factorization using analytic interpolation theory," Proceedings of the 1986 IEEE International conference on Decision and Control, Athens, Greece, pp. 7-11, December 1986.
- C-5. **T.T. Georgiou**, "A topological view of the Nevanlinna-Pick problem: solutions of dimension n ," Proceedings of the IEEE Conf. on Decision and Control, pp. 315-319, December 1984.
- C-4. **T.T. Georgiou**, F. Hamano, Z. Roth, and Y. Shamash, Robotics in Engineering Curriculum, Proceedings of the 1984 Frontiers in Education Conference, August 1984.
- C-3. **T.T. Georgiou**, "Topological aspects of the Caratheodory problem," Proceedings of the ICASSP'84. IEEE International Conference on Acoustics, Speech, and Signal Processing, volume 9, pages 220-223, March 1984.
- C-2. **T.T. Georgiou** and P.P. Khargonekar, "On the partial realization problem for partial covariance sequences," Proceedings of the Princeton conference on Information Systems and Sciences, pp. 181, March 1982.
- C-1. P.P. Khargonekar, **T.T. Georgiou**, and A.B. Ozguler, "Skew prime polynomial matrices and invariant subspaces," Proceedings of the 1981 International Symposium on the Mathematical Theory of Networks and Systems, pp. 139-143, August 1981.