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TITLE: Professor
Mechanical and Aerospace Engineering
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TIME/PLACE OF BIRTH: 1956, Athens, Greece

CITIZENSHIP: U.S.A.

EDUCATION: University of Florida, Gainesville, FL 32611
Doctor of Philosophy in Electrical Engineering, 1983

National Technical University of Athens, Greece
Diploma in Electrical and Mechanical Engineering, 1979

PROFESSIONAL INTERESTS:

Control Engineering and Control Science, Mathematical Systems Theory, Optimization, Circuit Theory, Signal Processing and Estimation, Probability Theory and Information Sciences, Mathematical Physics and Applied Mathematics.

ACADEMIC APPOINTMENTS:

2016–present	University of California, Irvine Professor (Above-Scale) of Mechanical and Aerospace Engineering (6/2016-present)
1989–2016	University of Minnesota, Minneapolis Department of Electrical Engineering and Computer Science Professor (1994-2016), Professor Emeritus (2016-present) Associate Professor (1989-1994) Co-Director, Center for Control Science and Dynamical Systems (1990-2016)
1986–1989	Iowa State University, Ames Department of Electrical Engineering Associate Professor (1988-1989) Assistant Professor (1986-1988)
1986–1989	Florida Atlantic University, Boca Raton Department of Electrical Engineering Visiting Assistant, University of Minnesota (1985-1986) Assistant Professor (1983-1986)

HONORS AND AWARDS:

- 2018-present UCI Distinguished Professor, University of California, Irvine
- 2016 Fellow of the International Federation of Automatic Control (IFAC)
Citation: *For fundamental contributions to robust control and spectral analysis*
- 2016-2018 Chancellor's Professor, University of California, Irvine
- 2011 Foreign Member of the Royal Swedish Academy of Engineering Sciences, (IVA).
- 2002-2016 Vincentine Hermes-Luh Chair of Electrical Engineering, University of Minnesota
- 2000 Fellow of the Institute of Electrical and Electronic Engineers (IEEE)
Citation: *For contributions to the theory of robust control.*
- 2017 *IEEE Control Systems Society G.S. Axelby Outstanding Paper Award*¹ for the publication: "Optimal steering of a linear stochastic system to a final probability distribution, part I," (with Y. Y. Chen and M. Pavon) *IEEE Trans. on Automatic Control*, **61 (5)**: 1158 - 1169, May 2016.
- 2003 *IEEE Control Systems Society G.S. Axelby Outstanding Paper Award*¹ ,
for the publication: "A generalized entropy criterion for Nevanlinna-Pick interpolation: A convex optimization approach to certain problems in systems and control", (with C. Byrnes and A. Lindquist), *IEEE Trans. on Automatic Control*, **45(6)**: 822-839, June 2001.
- 1999 *IEEE Control Systems Society G.S. Axelby Outstanding Paper Award*¹ for the publication: "Robustness Analysis of Nonlinear Feedback Systems: An Input-Output Approach," (with M.C. Smith) *IEEE Trans. on Automatic Contr.*, 42(9): 1200-21, 1997.
- 1992 *IEEE Control Systems Society G.S. Axelby Outstanding Paper Award*¹ for the publication: "Optimal robustness in the gap metric", (with M.C. Smith) *IEEE Trans. on Automat. Contr.*, 35(6): 673-86, 1990.
- 2007 Plenary speaker, "The meaning of Distances in Spectral Analysis," 2007 46th IEEE International Conference on Decision and Control, New Orleans.
- 2000 Plenary speaker, 2000 International Symposium on the Mathematical Theory of Networks and Systems, Perpignan, France.
- 1993 *Best Instructor Award*. Presented by the Institute of Technology Student Board, University of Minnesota.

REFEREED JOURNAL ARTICLES:

- P1 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.
- P2 T.T. Georgiou and P.P. Khargonekar, "Linear fractional transformations and spectral factorization", *IEEE Trans. on Automatic Control*, AC-31: 345-347, April 1986.
- P3 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.
- P4 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.

¹The G.S. Axelby award is for "outstanding papers published in the *IEEE Transactions on Automatic Control* during the previous two calendar years before the year of the award, based on originality, clarity, potential impact on the theoretical foundations of control, and practical significance in application".

- P5 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.
- P6 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.
- P7 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.
- P8 T.T. Georgiou, "A topological approach to Nevanlinna-Pick interpolation", *SIAM J. on Mathematical Analysis*, 18(5): 1248-1260, September 1987.
- P9 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.
- P10 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.
- P11 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.
- P12 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.
- P13 T.T. Georgiou, "On the computation of the gap metric", *Systems and Control Letters*, 11(4): 253-257, October 1988.
- P14 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.
- P15 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.
- P16 T.T. Georgiou and M.C. Smith, "W-stability of feedback systems", *Systems and Control Letters*, 13:271-277, November 1989.
- P17 T.T. Georgiou and M.C. Smith, "Optimal robustness in the gap metric", *IEEE Transactions on Automatic Control*, 35:673-686, June 1990.
- P18 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.
- P19 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.
- P20 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.
- P21 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.
- P22 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.
- P23 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.
- P24 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.

- P25 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.
- P26 T.T. Georgiou, "Differential stability and robust control of nonlinear systems," *Mathematics of Control, Signals and Systems*, **6(4)**: 289-307, 1993.
- P27 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.
- P28 C. Chang and T.T. Georgiou, "Geometric aspects of the Caratheodory extension problem," *Linear Algebra and its Applications*, **203/4**: 209-251, 1994.
- P29 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,
- P30 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.
- P31 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.
- P32 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.
- P33 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.
- P34 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.
- P35 T.T. Georgiou, M. Khammash, and A. Megretski, "On a large-gain theorem," *Systems and Control letters*, **32(4)**: 231-234, December 1997.
- P36 T.T. Georgiou, "The interpolation problem with a degree constraint," *IEEE Trans. on Automatic Control*, **44(3)**: 631-635, March 1999.
- P37 I. Fialho and T. T. Georgiou, "Worst-Case Analysis of Nonlinear Feedback Systems," *IEEE Trans. on Automatic Control*, **44(6)**: 1180-96, June 1999.
- P38 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.
- P39 T.T. Georgiou, "Signal Estimation via Selective Harmonic Amplification: MUSIC redux," *IEEE Trans. on Signal Processing*, **48(3)**: 780-790, March 2000.
- P40 T.T. Georgiou and M.C. Smith, "Robustness of a relaxation oscillator," *International Journal of nonlinear and robust control*, **10**: 1005-1024, October 2000.
- P41 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.
- P42 T.T. Georgiou, "Spectral Estimation by Selective Harmonic Amplification," *IEEE Trans. on Automatic Control*, **46(1)**: 29-42, January 2001.
- P43 S. Varigonda and T.T. Georgiou, "Dynamics of relay relaxation oscillators," *IEEE Trans. on Automatic Control*, **46(1)**: 65-77, January 2001.
- P44 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.

- P45 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*, April 2001.
- P46 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.
- P47 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.
- P48 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.
- P49 T.T. Georgiou and A. Lindquist, "Kullback-Leibler approximation of spectral density functions," *IEEE Trans. on Information Theory*, **49(11)**, November 2003.
- P50 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.
- P51 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.
- P52 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.
- P53 A. Nasiri Amini and T.T. Georgiou, "Avoiding Ambiguity in Beam-space Processing," *IEEE Signal Processing Letters*, **12(5)**: 372 - 375, May 2005.
- P54 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.
- P55 T.T. Georgiou, "Relative Entropy and the multi-variable multi-dimensional Moment Problem," *IEEE Trans. on Information Theory*, **52(3)**: 1052 - 1066, March 2006.
- P56 T.T. Georgiou and A. Lindquist, "Remarks on control design with degree constraint," *IEEE Trans. on Automatic Control*, **51(7)**: 1150-1156, July 2006.
- P57 T.T. Georgiou, "Decomposition of Toeplitz matrices via convex optimization," *IEEE Signal Processing Letters*, **13(9)**: 537- 540, September 2006.
- P58 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.
- P59 T.T. Georgiou, "The Carathéodory-Fejér-Pisarenko decomposition and its multivariable counterpart," *IEEE Trans. on Automatic Control*, **52(2)**: 212-228, February 2007.
- P60 T.T. Georgiou, "Distances and Riemannian Metrics for Spectral Density Functions," *IEEE Trans. on Signal Processing*, **55(8)**: 3995-4003, August 2007.
- P61 T.T. Georgiou, "An intrinsic metric for power spectral density functions," *IEEE Signal Processing Letters*, **14(8)**: 561-563, August 2007.
- P62 T.T. Georgiou, "The maximum entropy ansatz in the absence of a time-arrow: fractional pole models," *IEEE Trans. on Information Theory*, **53(8)**: 2841-2851, August 2007.
- P63 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.

- P64 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.
- P65 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.
- P66 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.
- P67 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.
- P68 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.
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- P70 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.
- P71 Mir Shahrouz Takyar, and T.T. Georgiou, "Multivariable analytic interpolation with a degree constraint," *IEEE Trans. on Automatic Control*, **55(5)**: 1057-1088, May 2010.
- P72 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.
- P73 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.
- P74 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.
- P75 T.T. Georgiou and A. Lindquist, "The Separation Principle in Stochastic Control, Redux," *IEEE Trans. on Automatic Control*, **58(10)**: 2481-2494, October 2013.
- P76 J. Karlsson and T.T. Georgiou, "Uncertainty bounds for spectral estimation," *IEEE Trans. on Automatic Control*, **58(7)**: 1659-1673, July 2013.
- P77 Lipeng Ning, Xianhua Jiang and T.T. Georgiou, Geometric methods for estimation of structured covariances, *IEEE Signal Processing Letters*, **20(8)**: 787-790, August 2013.
- P78 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.
- P79 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.
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- P81 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.
- P82 T.T. Georgiou and M. Pavon, Positive contraction mappings for classical and quantum Schrödinger systems, *Journal of Mathematical Physics*, **56** 033301 (2015)

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- P87 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, arxiv.org/abs/1412.4430
- P88 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
- P89 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
- P90 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: doi.org/10.1137/16M1061382
- P91 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
- P92 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
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- P95 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
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- P97 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
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- P99 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

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- P103 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
- P104 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
- P105 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. <https://doi.org/10.1007/s10915-018-0696-8>
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PATENTS:

- Pat1 Method and Apparatus for a tunable high-resolution spectral estimator. Co-discoverers: Chris Byrnes (Washington University) and Anders Lindquist (Royal Institute of Technology, Sweden). U.S. Patent No. 6,400,310 (issued June 4, 2002).
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OTHER CONFERENCE & WORKSHOP PRESENTATIONS (from 2016 on):

- CP1 *Entropic and Displacement Interpolation: Schrödinger bridges, Monge-Kantorovich optimal transport, and a Computational Approach Based on the Hilbert Metric*, Institute for Mathematics and its Applications (IMA), Workshop Optimization and Parsimonious Modeling, January 2016
- CP2 *Entropic interpolation in general & robust transport over networks*, Army Research Office (ARO) workshop on the Statistical Physics of Stochastic Optimal Control and Learning, Atlanta, GA, June 2016
- CP3 *Matrix-valued and vector-valued density flows*, by Yongxin Chen, Tryphon T. Georgiou* and Allen Tannenbaum, 1134th American Mathematical Society (AMS) meeting, 11/5/2017, at UC Riverside, Special Session on Particle Methods and Nonlocal Partial Differential Equations, (oral presentation, invited).
- CP4 *Monge-Kantorovich optimal transport of matrix-valued distributions*, Workshop on Mathematics, Signal Processing and Linear Systems: New Problems and Directions, November 14-19 2017, Chapman University, CA (oral presentation, invited)
- CP5 *Tribute to Rudolf E. Kalman quest for algebraic characterizations of positivity & personal reminiscences* (In memoriam), IFAC 2017 World Congress, Toulouse, France, July 2017, subsequently technical manuscript published.
- CP6 *Optimal transport for Gaussian mixture models*, Y. Chen, T.T. Georgiou, A. Tannenbaum, in Advances in Neural Information Processing Systems, presented at the Conference on Neural Information Processing Systems (NIPS) 2017; <https://arxiv.org/abs/1710.07876> (No Proceedings publication - submitted and published subsequently in IEEE Access).
- CP7 *Fitting ActiveAx model to the crossing fibers of the human brain data*, IEEE International Symposium on Biomedical Imaging (ISBI'18), (with M. Afzali, H. Farooq*, Q. Wen, Y-C. Wu, T.T. Georgiou, C. Lenglet, H. Cheng, S. Newman, E. Garyfallidis) Washington DC, April 4 - 7, 2018 (abstract).
- CP8 *Color of Turbulence: Low-complexity stochastic dynamical modeling of turbulent flows*, Armin Zare, Mihailo Jovanovic, T.T. Georgiou, 2018 Flow Control Conference, 2018 AIAA Aviation and Aeronautics Forum and Exposition (oral presentation).
- CP9 *Wasserstein geometry and applications*, Advances in Operator Theory with Applications to Mathematical Physics November 12-16, 2018, Chapman University, CA (oral presentation, invited).
- CP10 *Wasserstein Geometry and Applications: from Quantum and vector transport to network robustness*, Advances in Operator Theory with Applications to Mathematical Physics, Chapman University, November 12-16 2018
- CP11 *Interpolation of Gaussian mixture models, and other directions in OMT*, Workshop on Shape Analysis, Stochastic Mechanics and Optimal Transport, Banff, Canada, December 2018, www.birs.ca/events/2018/5-day-workshops/18w5151/videos/watch/201812111052-Georgiou.html