

## **A. Books, Monographs, Recordings, Large Scale Musical or Video Works, Commissions**

### **Books**

B1. *Mathematical Control Theory I: Nonlinear and Hybrid Control Systems*, Eds: K. Camlibel, **A.A. Julius**, R. Pasumathy, J. Scherpen, Springer, 2015.

B2. *Microbiorobotics*, Eds: M-J. Kim, **A.A. Julius**, E.A. Steager, Elsevier, 2012.  
Book B2 is an edited volume with the listed editors. As an editor, I reviewed four contributed chapters, and wrote a short introductory chapter.

### **Book Chapters**

BC1. **A.A. Julius**, Trajectory-based theory for hybrid systems, in *Mathematical Control Theory I: Nonlinear and Hybrid Control Systems* (Book B1), 2015.

BC2. **A.A. Julius**, M.S. Sakar, E.B. Steager, G.J. Pappas, V. Kumar, Stochastic models and control of bacterial bioactuators and biomicrobots, in *Microbiorobotics* (Book B2), 2012.

## B. Journal Articles

1. **In Refereed Journals** (articles which are reviewed by peers in the field prior to publication).

Underlined co-authors are students or scholars advised by me. Articles dated in 2009 or later are published under my Rensselaer affiliation.

### **Major Articles Submitted for Publication (3)**

- J1. S. Saha, **A.A. Julius**, Trajectory based controller synthesis for manipulator arms with metric temporal logic specifications, submitted to *Robotics and Automation Letters*, 2016.
- J2. S. Saha, **A.A. Julius**, Controller synthesis for multi-agent systems with Metric Temporal Logic specifications, submitted to *Int. J. Robotics Research*, 2016.
- J3. Z. Xu, **A.A. Julius**, J. H. Chow, Robust testing of cascading failure mitigations based on power dispatch and quick-start storage, accepted to *IEEE Systems Journal*, 2017.

### **Major Articles Accepted for Publication (1)**

- J4. Z. Xu, **A.A. Julius**, Census Signal Temporal Logic inference for multi-agent group behavior analysis, accepted to *IEEE Trans. Automation Science and Engineering*, 2017.

### **Published Major Articles (23)**

- J5. Z. Xu, M. Birtwistle, C. Belta, **A.A. Julius**, A novel temporal logic inference approach for model discrimination, *IEEE Life Science Letters*, vol. 2(3), pp.19-22, 2016.
- J6. W. Qiao, J.T. Wen, **A.A. Julius**, Entrainment control of phase dynamics, *IEEE Trans. Automatic Control*, vol. 63(1), pp. 445-450, 2017.
- J7. **A.A. Julius**, J.X. Zhang, W. Qiao, J.T. Wen, Multi-input Adaptive Notch Filter and observer for circadian phase estimation, *Int. J. Adaptive Control and Signal Processing*, vol. 30(8-10), pp. 1375-1388, 2016.
- J8. J.X. Zhang, W. Qiao, J.T. Wen, **A.A. Julius**, Light-Based Circadian Rhythm Control: Entrainment and Optimization, *Automatica*, vol. 68, pp. 44-55, 2016.
- J9. Y. Deng, A. D'Innocenzo, M.D. DiBenedetto, S. Di Gennaro, **A.A. Julius**, Verification of hybrid automata diagnosability with measurement uncertainty, *IEEE Trans. Automatic Control*, vol. 61(4), pp. 982-993, 2016.

- J10. P.S. Kim, A.T. Becker, Y. Ou, **A.A. Julius**, M.J. Kim, Imparting magnetic dipole heterogeneity to internalized iron oxide nanoparticles for microorganism swarm control, in *J. Nanoparticle Research*, vol. 17(3), DOI: 10.1007/s11051-014-2746-y, 2015.
- J11. A.K. Winn, **A.A. Julius**, Safety controller synthesis using human generated trajectories, *IEEE Trans. Automatic Control*, 60(6), pp. 1597-1610, 2015.
- J12. U.K. Cheang, K.W. Lee, **A.A. Julius**, M.J. Kim, Multiple-robot drug delivery strategy through coordinated teams of microswimmers, *Applied Physics Letters*, 105, p. 083705, doi: 10.1063/1.4893695, 2014.
- J13. S. Afshari, S. Mishra, **A.A. Julius**, F. Lizzaralde, J. Wason, J.T. Wen, Modeling and control of color tunable lighting systems, *Energy and Buildings*, vol. 68A, pp. 242-253, 2014.
- J14. Y. Ou, D.H. Kim, P.S. Kim, M.J. Kim, **A.A. Julius**, Motion control of magnetized *Tetrahymena pyriformis* cells by magnetic field with Model Predictive Control (MPC), *Int. J. Robotics Research*, 32(1), pp. 129-139, 2013.
- J15. G. Richard, C. Belta, **A.A. Julius**, S. Amar, Controlling the outcome of the Toll-like signaling pathways, *PLoS ONE*, Vol. 7(2), e31341, 2012.
- J16. D.H. Kim, P.S. Kim, **A.A. Julius**, M.J. Kim, Three-dimensional control of *Tetrahymena pyriformis* using artificial magnetotaxis, *Applied Physics Letters*, Vol. 100, 053702, 2012.
- J17. T.J. Zhang, J.T. Wen, **A.A. Julius**, Y. Peles, M.K. Jensen, Stability analysis and maldistribution control of two-phase flow in parallel evaporating channels, *Int. J. Heat and Mass Transfer*, 54, pp. 5298-5305, 2011.
- J18. M.S. Sakar, E.B. Steager, D.H. Kim, **A.A. Julius**, M.J. Kim, V. Kumar, G.J. Pappas, Modeling, control, and experimental characterization of microbiorobots, *Int. Journal on Robotics Research*, 30(6), pp. 647-658, 2011.
- J19. M.M. Zavlanos, **A.A. Julius**, S.P. Boyd, G.J. Pappas, Inferring stable genetic networks from steady- state data, *Automatica*, 47(6), pp. 1113-1122, Special Issue on Systems Biology, 2011.
- J20. **A.A. Julius**, M. Zavlanos, S.P. Boyd, G.J. Pappas, Genetic network identification using convex programming, in *IET Systems Biology*, 3(3), pp. 155-166, 2009.

- J21. **A.A. Julius**, G.J. Pappas, Approximate abstraction of stochastic hybrid systems, in *IEEE Trans. Automatic Control*, 55(6), pp. 1093-1203, 2009.
- J22. **A.A. Julius**, A. D’Innocenzo, M.D. DiBenedetto, G.J. Pappas, Approximate equivalence and synchronization of metric transition systems, *Systems and Control Letters*, vol.58 pp. 94-101, 2009.
- J23. P. Tabuada, A.D. Ames, **A.A. Julius**, G.J. Pappas, Approximate reduction of dynamical systems, in *Systems and Control Letters*, 57(7), 538-545, July 2008.
- J24. **A.A. Julius**, A. Halasz, M.S. Sakar, H. Rubin, V. Kumar, G.J. Pappas, Stochastic modeling and control of biological systems: the lactose regulation system of Escherichia coli, *IEEE Trans. Automatic Control*, 53(1), pp. 51-65, joint special issue with *IEEE Trans. Circuits and Systems*, 2008.
- J25. **A.A. Julius**, J.W. Polderman, A.J. van der Schaft, Parametrization of the regular equivalences of the canonical controller, *IEEE Trans. Automatic Control*, 53(4), pp. 1032 - 1036, 2008.
- J26. A. Girard, **A.A. Julius**, G.J. Pappas, Approximate simulation relations for hybrid systems, in *Int. J. Discrete Event Dynamic Systems*, 18(2):163-179, June 2008.
- J27. **A.A. Julius**, J.C. Willems, M.N. Belur, H.L. Trentelman, The canonical controllers and regular interconnection, in *Systems and Control Letters*, 8(54), pp 787-797, August 2005.

## 2. Conference Publications, Peer-Reviewed

Underlined co-authors are students or scholars advised by me. Articles dated in 2009 or later are published under my Rensselaer affiliation.

- C1. Z. Xu, **A.A. Julius**, J. H. Chow, Optimal energy storage control for frequency regulation under temporal logic specifications, in *Proc. American Control Conference*, pp. 1874-1879, Seattle, WA, 2017.
- C2. T. Liu, A.A. Abouzeid, **A.A. Julius**, Traffic flow control in vehicular communication networks, in *Proc. American Control Conference*, pp. 5513-5518, Seattle, WA, 2017.
- C3. S. Saha, **A.A. Julius**, An MILP approach for real-time optimal controller synthesis with Metric Temporal Logic specifications, in *Proc. American Control Conference*, pp. 1105-1110, Boston, MA, 2016.
- C4. Y. Deng, A. D’Innocenzo, **A.A. Julius**, Trajectory-based observer for hybrid automata fault diagnosis, in *Proc. IEEE Conf. Decision and Control*, pp. 942-947, Osaka, Japan, 2015.
- C5. Z. Xu, C. Belta, A.A. Julius, Temporal Logic Inference with Prior Information: An Application to Robot Arm Movements, in *Proc. 5<sup>th</sup> IFAC Conf. Analysis and Design of Hybrid Systems (ADHS 2015)*, pp. 141-146, Atlanta, GA, 2015.
- C6. H. Kim, U. K. Cheang, **A.A. Julius**, M.J. Kim, Dynamic obstacle avoidance for bacteria-powered microrobots, to appear in *Proc. IEEE/RSJ Int. Conf. on Intelligence Robots and Systems (IROS 2015)*, Hamburg, Germany, 2015.
- C7. A. L. Sinkoe, **A.A. Julius**, J. Hahn, Identifying potential regulatory interactions of the MAPK-associated gene network, in *Proc. Foundations of Systems Biology in Engineering (FOSBE 2015)*, Boston, MA, 2015.
- C8. Z. Xu, M. Birtwistle, C. Belta, **A.A. Julius**, Temporal logic inference for model discrimination an application on the ERK pathway, in *Proc. Foundations of Systems Biology in Engineering (FOSBE 2015)*, Boston, MA, 2015. (**invited to submit to a special issue of IEEE Life Sciences Letters**)
- C9. Y. Ou, P. Kang, M.J. Kim, **A.A. Julius**, Algorithms for simultaneous motion control of multiple *T. pyriformis* cells: Model predictive control and Particle Swarm Optimization, in *Proc. IEEE Int. Conf. Robotics and Automation (ICRA 2015)*, pp. 3507-3512, Seattle, WA, 2015.

- C10. Y. Deng, **A.A. Julius**, A. D’Innocenzo, Probabilistic diagnosability of hybrid systems, in *Proc. Hybrid Systems: Computation and Control*, pp. 88-97, Seattle, WA, 2015.
- C11. S. Saha, **A.A. Julius**, Trajectory-based formal controller synthesis for multi-link robots with elastic joints, in *Proc IEEE Conf. Decision and Control*, pp. 830 – 835, Los Angeles, CA, 2014.
- C12. H. Abbas, A.K. Winn, G. Fainekos, **A.A. Julius**, Functional gradient descent method for Metric Temporal Logic specifications, in *Proc. American Control Conference*, pp. 2312-2317, Portland, OR, 2014.
- C13. **A.A. Julius** and A. D’Innocenzo, Combining analytical technique and randomized algorithm in safety verification of stochastic hybrid systems, in *Proc. American Control Conference*, pp. 1438-1443, Portland, OR, 2014.
- C14. Y. Deng and **A.A. Julius**, Safe neighborhood computation for hybrid systems verification, in *Proc. 4th Workshop on Hybrid Autonomous Systems (HAS 2014)*, Grenoble, France, 2014.
- C15. **A.A. Julius** and M. Inoue, Sampling criteria that preserve monotone regulation in gene regulatory networks, in *Proc. Int. Symposium Mathematical Theory of Networks and Systems (MTNS 2014)*, Groningen, The Netherlands, 2014. (extended abstract and oral presentation)
- C16. A.K. Winn and **A.A. Julius**, Feedback control law generation for safety controller synthesis, in *Proc. IEEE Conf. Decision and Control*, pp. 3912 – 3917, Florence, Italy, 2013.
- C17. Z.X. Zhang, J.T. Wen, **A.A. Julius**, Optimal and feedback control for light-based circadian entrainment, in *Proc. IEEE Conf. Decision and Control*, pp. 2677-2682, Florence, Italy, 2013.
- C18. G. Richard, **A.A. Julius**, C. Belta, Optimizing regulation functions in gene network identification, in *Proc. IEEE Conf. Decision and Control*, pp. 745-750, Florence, Italy, 2013.
- C19. A. Becker, Y. Ou, P.S. Kim, M.J. Kim, **A.A. Julius**, Feedback control of many magnetized *Tetrahymena pyriformis* cells by exploiting phase inhomogeneity, in *Proc. IEEE/RSJ Int. Conf. on Intelligence Robots and Systems (IROS 2013)*, pp. 3317 – 3323, Tokyo, Japan, 2013.

**\*Finalist of Best Paper Award (5 out of 904 accepted papers)\***

C20. P.S. Kim, A. Becker, Y. Ou, **A.A. Julius**, M.J. Kim, Swarm control of cell-based microrobots using a single global magnetic field, in *Proc. 10th Int. Conf. on Ubiquitous Robots and Ambient Intelligence (URAI 2013)*, Jeju, South Korea, 2013.

**\*Won Best Application Paper Award (out of 230 accepted papers)\***

C21. Y. Deng, A. Rajhans, **A.A. Julius**, STRONG: A trajectory-based verification toolbox for hybrid systems, in *Proc. 10th Int. Conf. on Quantitative Evaluation of Systems (QEST 2013)*, Buenos Aires, Argentina, 2013.

C22. A.K. Winn, **A.A. Julius**, Optimization of human generated trajectories for safety controller synthesis, in *Proc. American Control Conference*, pp. 4374-4379, Washington DC, 2013.

C23. Z.X. Zhang, J.T. Wen, **A.A. Julius**, Adaptive circadian argument estimator and its application to circadian argument control, in *Proc. American Control Conference*, pp. 2295-2300, Washington DC, 2013.

C24. J.X. Zhang, J.T. Wen, **A.A. Julius**, Adaptive circadian rhythm estimator and its application to locomotor activity, in *Proc. IEEE Signal Processing in Medicine and Biology Symposium*, pp. 1-6, New York, NY, 2012.

C25. J.X. Zhang, J.T. Wen, **A.A. Julius**, Optimal circadian rhythm control with light input for rapid entrainment and improved vigilance, in *Proc. IEEE Conf. Decision and Control*, pp. 3007-3012, Maui, HI, 2012.

C26. A. Winn, X. Gao, S. Mishra, **A.A. Julius**, Learning potential functions by demonstration for path planning, in *Proc. IEEE Conf. Decision and Control*, pp. 4654-4659, Maui, HI, 2012.

C27. Y. Ou, D.H. Kim, P.S. Kim, M.J. Kim, **A.A. Julius**, Motion control of *Tetrahymena pyriformis* cells with artificial magnetotaxis: Model Predictive Control (MPC) approach, in the *Proc. IEEE Intl. Conf. Robotics and Automation*, pp. 2492 - 2497, St. Paul, USA, 2012.

C28. D.H. Kim, P.S. Kim, **A.A. Julius**, M.J. Kim, Three-dimensional control of engineered motile cellular microrobots, in the *Proc. IEEE Intl. Conf. Robotics and Automation*, pp. 721 - 726, St. Paul, USA, 2012.

- C29. S. Afshari, S. Mishra, **A.A. Julius**, F. Lizzaralde, J.T. Wen, Modeling and feedback control of color-tunable LED lighting systems, in the *Proc. American Control Conference*, pp. 3663-3668, Montreal, Canada, 2012.
- C30. **A.A. Julius**, A.K. Winn, Safety controller synthesis using human generated trajectories: nonlinear dynamics with feedback linearization and differential flatness, in the *Proc. American Control Conference*, pp. 709-714, Montreal, Canada, 2012.
- C31. Q. Wang, Y. Ou, **A.A. Julius**, K. Boyer, M.J. Kim, Tracking *Tetrahymena pyriformis* cells using decision trees, in the *Proc. 21<sup>st</sup> Int. Conf. Pattern Recognition*, Tsukuba, Japan, 2012.
- C32. G. Richard, H.J. Chang, I. Cizelj, C. Belta, **A.A. Julius**, S. Amar, Integration of large-scale metabolic, signaling, and gene regulatory networks with application to infection responses, in the *Proc. 50th IEEE Conf. Decision and Control*, Orlando, USA, 2011.
- C33. N.G. Cooper, C. Belta, **A.A. Julius**, Genetic regulatory network identification using multivariate monotone functions, in the *Proc. 50th IEEE Conf. Decision and Control*, Orlando, USA, 2011.
- C34. **A.A. Julius**, C. Belta, Genetic regulatory network identification using monotone functions decomposition, in the *Proc. IFAC World Congress*, Milan, Italy, 2011.
- C35. H. Chang, G. Richard, **A.A. Julius**, C. Belta, S. Amar, An application of monotone functions decomposition for reconstruction of gene regulatory network, in the *Proc. 33rd Annual IEEE Engineering in Medicine and Biology Conf. (EMBC)*, Boston, USA, 2011.
- C36. N.G. Cooper, **A.A. Julius**, Bacterial persistence: mathematical modeling and optimal treatment strategy, in the *Proc. American Control Conference*, San Francisco, USA, 2011.
- C37. M.M. Zavlanos, **A.A. Julius**, Robust flux balance analysis of metabolic networks, in the *Proc. American Control Conference*, San Francisco, USA, 2011.



- C38. D.H. Kim, S. Brigandi, **A.A. Julius**, M.J. Kim, Real-time feedback control using artificial magnetotaxis with rapidly-exploring random tree (RRT) for *Tetrahymena pyriformis* as a microbiorobot, in the *Proc. IEEE International Conf. Robotics and Automation*, Shanghai, China, 2011.
- C39. **A.A. Julius**, S. Afshari, Using computer games for hybrid systems controller synthesis, in the *Proc. 49th IEEE Conf. Decision and Control*, Atlanta, Georgia, 2010.
- C40. J.X. Zhang, A. Bierman, J.T. Wen, **A.A. Julius**, M. Figueiro, Circadian system modeling and phase control, in the *Proc. 49th IEEE Conf. Decision and Control*, Atlanta, Georgia, 2010.
- C41. T.J. Zhang, J.T. Wen, **A.A. Julius**, Extremum seeking Micro-Thermal-Fluid control for active two-phase microelectronics cooling, in the *Proc. 49th IEEE Conf. Decision and Control*, Atlanta, Georgia, 2010.
- C42. **A.A. Julius**, Trajectory-based controller design for hybrid systems with affine continuous dynamics, in the *Proc. 6th IEEE Conf. Automation Science and Engineering*, Toronto, Canada, 2010.
- C43. M.S. Sakar, E.B. Steager, **A.A. Julius**, M.J. Kim, V. Kumar, G.J. Pappas., Biosensing and actuation for microbiorobots, in the *Proc. IEEE Intl. Conf. Robotics and Automation*, Alaska, USA, 2010.
- C44. T.J. Zhang, J.T. Wen, **A.A. Julius**, H. Bai., Parallel-channel flow instabilities and active control schemes in two-phase microchannel heat exchanger systems, in the *Proc. American Control Conference*, Baltimore, USA, 2010.
- C45. **A.A. Julius**, S. Sawyer, Control systems challenges in energy efficient portable UV-based water sterilizer, in the *Proc. American Control Conference*, Baltimore, USA, 2010.
- C46. **A.A. Julius**, G.J. Pappas, Trajectory based verification using local finite-time invariance, in *Hybrid Systems: Computation and Control*, Lecture Notes in Computer Science vol. 5469, pp. 223-236, Springer Verlag, 2009.

- C47. **A.A. Julius**, M.S. Sakar, E. Steager, M.J. Kim, V. Kumar, G.J. Pappas., Harnessing bacterial power for micromanipulation and transport, in the *Proc. IEEE Intl. Conf. Robotics and Automation*, Kobe, Japan, 2009.
- C48. **A.A. Julius**, G.J. Pappas., Probabilistic testing for stochastic hybrid systems, in the *Proc. 47th IEEE Conf. Decision and Control*, Cancun, Mexico, 2008.
- C49. **A.A. Julius**, M. Imielinski, G.J. Pappas., Analysis of metabolic networks using convex programming, in the *Proc. 47th IEEE Conf. Decision and Control*, Cancun, Mexico, 2008.
- C50. M.M. Zavlanos, **A.A. Julius**, S.P. Boyd and G.J. Pappas., Identification of stable genetic networks using convex programming, in the *Proc. American Control Conference*, Seattle, USA, 2008.
- C51. **A.A. Julius**, M.S. Sakar, A. Bemporad, G.J. Pappas, Hybrid model predictive control of induction of *Escherichia coli*, in the *Proc. 46th IEEE Conf. Decision and Control*, New Orleans, USA, 2007.
- C52. A. D’Innocenzo, **A.A. Julius**, G.J. Pappas, M.D. Di Benedetto, S. Di Gennaro, Verification of temporal properties on hybrid automata by simulation relations, in the *Proc. 46th IEEE Conf. Decision and Control*, New Orleans, USA, 2007.
- C53. A. D’Innocenzo, **A.A. Julius**, M.D. Di Benedetto, G.J. Pappas, Approximate timed abstractions of hybrid automata, in the *Proc. 46th IEEE Conf. Decision and Control*, New Orleans, USA, 2007.
- C54. **A.A. Julius**, A. Halasz, V. Kumar, G.J. Pappas, Controlling biological systems: the lactose regulation system of *Escherichia coli*, in the *Proc. American Control Conference*, New York, USA, 2007.
- C55. **A.A. Julius**, G. Fainekos, M. Anand, I. Lee, G.J. Pappas, Model-based Robust Test Generation and Coverage for Hybrid Systems, in *Hybrid Systems: Computation and Control*, Lecture Notes in Computer Science vol. 4416, pp. 329-342, Springer Verlag, 2007.

- C56. **A.A. Julius**, Approximate abstraction of stochastic hybrid automata, in *Hybrid Systems: Computation and Control*, Lecture Notes in Computer Science vol. 3927, pp. 318-332, Springer Verlag, 2006.
- C57. **A.A. Julius**, A. Halasz, V. Kumar, G.J. Pappas., Finite state abstraction of a stochastic model of the lactose regulation system of Escherichia coli, in the *Proc. 45th IEEE Conf. Decision and Control*, San Diego, USA, 2006.
- \*Best paper presentation of the session\***
- C58. **A.A. Julius**, G.J. Pappas., Approximate equivalence and approximate synchronization of metric transition systems, in the *Proc. 45th IEEE Conf. Decision and Control*, San Diego, USA, 2006.
- C59. P. Tabuada, A. Ames, **A.A. Julius**, G.J. Pappas., Approximate reduction of dynamical systems, in the *Proc. 45th IEEE Conf. Decision and Control*, San Diego, USA, 2006.
- C60. A. Girard, **A.A. Julius**, G.J. Pappas., Approximate simulation relations for hybrid systems, in the *Proc. IFAC Conf. Analysis and Design of Hybrid Systems*, Alghero, Italy, 2006.
- C61. **A.A. Julius**, A. Girard, G.J. Pappas., Approximate bisimulation for a class of stochastic hybrid systems, in the *Proc. American Control Conference*, Minneapolis, USA, 2006.
- C62. **A.A. Julius**, M.N. Belur, Behavioral control in the presence of disturbances, in the *Proc. 44th IEEE Conf. Decision and Control*, Seville, Spain, 2005.
- C63. **A.A. Julius**, A.J. van der Schaft, Bisimulation as congruence in the behavioral setting, in the *Proc. 44th IEEE Conf. Decision and Control*, Seville, Spain, 2005.
- C64. **A.A. Julius**, J.W. Polderman, A.J. van der Schaft, Controller with minimal interaction, in the *Proc. IFAC World Congress*, Prague, Czech Republic, 2005.
- C65. **A.A. Julius**, A.J. van der Schaft, State maps of general behaviors, their lattice structure and bisimulations, in the *Proc. Conference on Mathematical Theory of Networks and Systems*, Leuven, Belgium, 2004.

- C66. **A.A. Julius**, A.J. van der Schaft, A behavioral framework for compositionality: linear systems, discrete event systems and hybrid systems, in the *Proc. Conference on Mathematical Theory of Networks and Systems*, Leuven, Belgium, 2004.
- C67. J.C. Willems, M.N. Belur, **A.A. Julius**, H.L. Trentelman, The canonical controller and its regularity, in the *Proc. 42nd IEEE Conf. Decision and Control*, pp 1639-1644, Hawaii, USA, 2003.
- C68. **A.A. Julius**, A.J. van der Schaft, Compatibility of behavioral interconnections, in the *Proc. European Control Conf.*, Cambridge, UK, 2003.
- C69. S.N. Strubbe, **A.A. Julius**, A.J. van der Schaft, Communicating Piecewise Deterministic Markov Processes, in the *Proc. IFAC Conf. Analysis and Design of Hybrid Systems*, pp 349-354, St. Malo, France, 2003.
- C70. **A.A. Julius**, S.N.Strubbe, A.J. van der Schaft, Control of hybrid behavioral automata by interconnection, in the *Proc. IFAC Conf. Analysis and Design of Hybrid Systems*, pp 135-140, St. Malo, France, 2003.
- C71. A.J. van der Schaft, **A.A. Julius**, Achievable behavior by composition, in the *Proc. 41st IEEE Conf. Decision and Control*, pp 7-12, Las Vegas, USA, 2002.
- C72. **A.A. Julius**, A.J. van der Schaft, The maximal controlled invariant sets of switched linear systems, in the *Proc. 41st IEEE Conf. Decision and Control*, pp 3174-3179, Las Vegas, USA, 2002.
- C73. O.E. Kaiser, **A.A. Julius**, S. Pietrzko, M. Morari, Uncontrollable modes in double wall panels, in the *Proc. 17th Int. Congress on Acoustics*, Paper no. 7P.09., Rome, Italy, 2001.

## C. Patent Applications and Disclosures

1. J.X. Zhang, J.T. Wen, **A.A. Julius**, *Circadian Phase Estimation, Modeling and Control*, patent filed on June 4<sup>th</sup> 2013.