Publications of Math Faculty 2011–2015

- Slimane Adjerid
  
  
  
  
  
  
  
  
  


Rachel Arnold

MA Haider, JE Olander, RF Arnold, DR Marous, AJ McLamb, KC Thompson, WR Woodruff and JM Haugh, A phenomenological mixture model for biosynthesis and linking of cartilage extracellular matrix in scaffolds seeded with chondrocytes, Biomechanics and Modeling in Mechanobiology 10 (2011), 915-924.

Teffera Asfaw


T. M. Asfaw, Topological degree and variational inequality theories for pseudomonotone perturbations of maximal monotone operators, ProQuest LLC, Dissertations, Ann Arbor, MI, (2013), pp. 163.


• Joseph Ball
- G.M. Boquet and J.A. Ball, Controllability of autonomous behaviors and Livsic overdetermined systems as 2D behaviors with pure autonomy degree one, Proceedings of the 2010 International Symposium on the Mathematical Theory of Networks and Systems (MTNS 2010), 7 pages.
- J.A. Ball and S. ter Horst, Robust control, multidimensional systems and multivariable function theory: commutative and noncommutative settings, MTNS 2010 Proceedings (15 pages).
- T. Malakorn and J.A. Ball, Structured noncommutative multidimensional linear systems and scalerecursive modeling, MTNS 2010 Proceedings (7 pages).


• Christopher Beattie

– Interpolatory Weighted-$H_2$ Model Reduction. (with B. Anic, S. Gugercin, and A.C. Antoulas.) Automatica, 49(5), pp.1275-1280, (2013)


Jeffrey Borggaard


– Model Reduction for DAEs with an Application to Flow Control, (with S. Gugercin), in Active Flow and Combustion Control 2014, R. King, ed.,


• Ezra Brown

- Trigonometry without triangles (with Adrian Rice), Math Horizons 19 (November 2011), 20-23.


- Why ellipses are not elliptic curves (with Adrian Rice), Mathematics Magazine, 85 (June 2012), 163-174.


- Squareorama 4, Math Horizons, 22 (November 2014), inside front cover.

- Many more names of (7,3,1), Mathematics Magazine, 88 (April 2015), 103-120.

• John Burns


- Control of PDE Systems with Delays, (with Terry L. Herdman and Lizette Zietsman), in Proceedings 1st IFAC Conference on Control of Partial Differential Equations, September, 2013, 85–90.


- On Optimal Thermal Control of an Idealized Room Including Hard Limits on Zone-Temperature and a Max-control Cost Term, (with E. M. Cliff), in Proceedings of the 52nd IEEE Conference on Decision and Control, December, 2013, 4821–4826.


- Jesse Chan


• Lauren Childs


Julianne Chung


Matthias Chung

- B. Gbel, K.M. Oltmanns, and M. Chung. Linking neuronal activity to the glucose metabolism. Theoretical Biology and Medical Modelling, 10(50), 1-19, 2013.


- Stanca Ciupe


• R Nikin-Beers and SM Ciupe. The role of antibody in enhancing dengue virus infection. Math Biosci, 263:8392, 2015.

• Joshua Clemons


• Eric de Sturler


• Alexander Elgart


**Jake Fillman**

**William Floyd**

**Serkan Gugercin**


• George Hagedorn


– Hagedorn, G.A.: A Minimal Uncertainty Product for One Dimensional Semiclassical Wave Packets. Spectral Analysis, Differential Equations and


• Michael Heitzman


• Terry Herdman


– Control of PDE Systems with Delays, (with J. A. Burns L. and Zietsman), IFAC Workshop on Control of Systems Modeled by Partial Differential Equations, Sept 2013, pp. 85-90.

• Traian Iliescu
  
  
  
  
  
  
  
  
  
  
  
  


Estrella Johnson


Jong Kim


• Leslie Kay


• Martin Klaus


• Tao Lin


- D. Depew, D. Han, J. Wang, X. He, T. Lin, Immersed-Finite-Element Particle-In-Cell simulations of lunar surface charging, Proceedings of the 13th Spacecraft Charging Technology Conference, Pasadena, California, June 23-27, 2014.


- Peter Linnell

- Nicholas Loehr

• Leonardo Mihalcea


• Axel Modhave

Domain Discontinuous Galerkin Method. The European Physical Journal - Applied Physics, 64 (2), 4 pages


- Henning Mortveit


Anderson Norton


- Daniel Orr

Eyvindur Palsson


Frank Quinn

- Davis, J; Quinn, F; Reich, H; Algebraic K-theory over the infinite dihedral group: a controlled topology approach. J. Topol. 4 (2011), no. 3, 505–528.


Michael Renardy


- On the eigenfunctions for Hookean and FENE dumbbell models, J. Rheol. 57 (2013), pp. 1311-1324
- (with S. Chowdhury, D. Mitra and M. Ramaswamy), Null controllability of the linearized compressible Navier Stokes system in one dimension, J. Diff. Eq. 257 (2014), pp. 3813-3849
- Well-posedness of the Prandtl boundary layer equations for the upper convected Maxwell fluid, J. Dyn. Diff. Eq. 27 (2015), pp. 981-988

Yuriko Renardy
- S. Afkhami, Y. Renardy, M. Renardy, 2010, Effects of viscosity ratio on the transient and steady deformation of a Newtonian drop in a viscous and viscoelastic matrix under shear flow, Proc. 16th US National Congress of

- John Rossi
– P.C. Fenton and John Rossi, ODEs and Wiman-Valiron theory in the unit disk, JMAA 367 (2010), 137-145.


- Mark Shimozono


• Shu-Ming Sun


• Peter Wapperom


- Tim Warburton


- Megan Wawro


• Pengtao Yue

- P. Yue and J.J. Feng, Wall energy relaxation in the Cahn-Hilliard model for moving contact lines. Phys. Fluids 23(2011) 012106


Lizette Zietsman


On the Inclusion of Actuator Dynamics in Boundary Control of Distributed Parameter Systems (with J.A. Burns), Proceedings 4th IFAC Workshop on Lagrangian and Hamiltonian Methods for Non Linear Control, University of Bologna, Bertinoro, Italy, 126-130, 2012.


