

# **Office of the Dean**

## Publications, Presentations, Editorships, and Talks

### Edited Volumes

- **A. S. Ackleh**, R.M. Colombo, S.C. Hille and A. Muntean (Eds.), Special Issue of Mathematical Biosciences and Engineering, 12(2) (2015).
- **A. Kumar**, J. Etheredge, and A. Boudreaux (Eds.), *Algorithmic and Architectural Gaming Design*, book, ISBN 978-1-466-1634-9, Published by IGI Global Inc., USA, May 2012.
- D. Nagamalai, **A. Kumar**, and A. Annamalai (Eds.), *Advances in Computational Science, Engineering and Information Technology*, Proceedings of the Third International Conference on Computational Science, Engineering and Information Technology, Turkey, 2013.
- **A. Kumar** (Editor-in-Chief), *International Journal of Embedded Systems and Applications (IJESA)*, volume 3 numbers 1-3, 2013.

### Editorship

- **A. S. Ackleh**, Associate Editor, *Journal of Mathematical Biosciences and Engineering*, 2009-present.
- **A. Kumar**, Editor-in-Chief, *International Journal of Embedded Systems and Applications (IJESA)*, 2012-present.
- **A. Kumar**, Associate Editor, *International Journal of Software Engineering & Applications*, 2012-present.

### Journal Papers (Published)

1. **A.S. Ackleh**, B. Ma, R.L. Miller, A general nonlinear model for the interaction of a size-structured population and its environment: Well-posedness and approximation, *Quarterly of Applied Mathematics*, **74** (2016), 671-704.
2. **A.S. Ackleh**, J. Cleveland, H.R. Thieme, Population dynamics under selection and mutation: Long-time behavior for differential equations in measure spaces, *Journal of Differential Equations*, **261** (2016), 1472-1505.
3. **A.S. Ackleh**, J. Carter, V.K. Chellamuthu and B. Ma, A model for the interaction of frog population dynamics with *Batrachochytrium dendrobatidis*, *Janthinobacterium lividum* and temperature and its implication for *Chytridiomycosis* management, *Ecological Modelling*, **320** (2016), 158-169.
4. **A.S. Ackleh**, K. Deng, and Y. Wu, Competitive exclusion and coexistence in a two-strain pathogen model with diffusion, *Mathematical Biosciences and Engineering*, **13**(2016), 1-18.
5. P.C. Tang, K.M. Smith and **G. M. Watson**. Repair of traumatized mammalian hair cells via sea anemone repair proteins. *Journal of Experimental Biology*, **219** (2016), 2265-2270.
6. **A. S. Ackleh** and P. Salceanu. Competitive exclusion and coexistence in an n-species Ricker model. *Journal of Biological Dynamics*, **9** (2015), 321-331.
7. **A. S. Ackleh**, M. Delcambre and K. L. Sutton. A Size-Structured Model for the Spread of *Mycobacterium marinum* Using a Second-Order High Resolution Finite Difference Scheme. *Journal of Biological Dynamics*, **9** (2015), 156-187.
8. **A. S. Ackleh**, Mark L. Delcambre and K. L. Sutton. A second order high resolution finite difference scheme for a size-structured model for the spread of *Mycobacterium marinum*.

- Journal of Biological Dynamics*, **9** (2015), 156-187.
9. **A. S. Ackleh**, J. Z. Farkas, X. Li and B. Ma. Finite Difference Approximations for a Size-Structured Population Model with Distributed States in the Recruitment. *Journal of Biological Dynamics*, **9** (2015), 2-31.
  10. P. C. Tang and **G. M. Watson**. Proteomic identification of hair cell repair proteins in the model sea anemone *Nematostella vectensis*. *Hearing Research*, **327** (2015), 245-256.
  11. **A. S. Ackleh**, M. Delcambre, K. L. Sutton, and D. Ennis. Structured models for the spread of *Mycobacterium marinum*: foundations for a numerical approximation scheme. *Mathematical Biosciences and Engineering*, **11** (2014), 679-721.
  12. **A. S. Ackleh**, K. L. Sutton, D. Ennis, A. Mallick and K. N. Mutoji. A structured model for the transmission dynamics of *Mycobacterium marinum* between aquatic animals. *Journal of Biological Systems*, **22** (2014), 29-60.
  13. **A. S. Ackleh**, R. J. Sacker and P. Salceanu. On a Discrete Selection-Mutation Model. *Journal of Difference Equations and Applications*, **20** (2014), 1383-1403.
  14. J. E. Banks, J. Stark, R. I. Vargas and **A. S. Ackleh**. Deconstructing the Surrogate Species Concept: A Life History Approach to the Protection of Ecosystem Services. *Ecological Applications*, **24** (2014), 770-778.
  15. **A. S. Ackleh** and P. Salceanu. Robust Uniform Persistence and Competitive Exclusion in a Nonautonomous Multi-Strain SIR Epidemic Model with Disease-Induced Mortality. *Journal of Mathematical Biology*, **68** (2014), 453-475.
  16. P. C. Tang and **G. M. Watson**. Cadherin-23 may be dynamic in hair bundles of the model Sea Anemone *Nematostella vectensis*. *PLOS ONE*, **9** (2014), e86084.
  17. **A. S. Ackleh**, B. Ma and J. Thibodeaux. A Second Order High Resolution Finite Difference Scheme for a Structured Erythropoiesis Model Subject to Malaria Infection. *Mathematical Biosciences*, **245** (2013), 2-11.
  18. **A. S. Ackleh** and J. Thibodeaux. A Second-Order Finite Difference Approximation for a Mathematical Model of Erythropoiesis. *Numerical Methods for Partial Differential Equations*, **29** (2013), 1821-1836.
  19. **A. S. Ackleh** and J. Z. Farkas. On the Net Reproduction Rate of Continuous Structured Populations with Distributed States at Birth. *Computers and Mathematics with Applications*, **66** (2013), 1685-1694.
  20. **A. S. Ackleh** and B. Ma. A Second Order High Resolution Scheme for a Juvenile-Adult Model of Amphibians. *Numerical Functional Analysis and Optimization*, **34** (2013), 365-403.
  21. J. Cleveland and **A. S. Ackleh**. Evolutionary Game Theory on Measure Spaces: Well-Posedness. *Nonlinear Analysis: Real World Applications*, **14** (2013), 785-797.
  22. R. Chiquet, B. Ma, **A. S. Ackleh**, N. Pal, and N. Sidorovskaia. Demographic Analysis of Sperm Whales Using Matrix Population Models. *Ecological Modeling*, **248** (2013), 71-79.
  23. **M. W. Totaro** and B. N. Guidry. The Advanced Database Course and the IS 2010 Model Curriculum: An Experiential Approach to Learning, *International Journal of Information and Operations Management Education (IJIOME)*, **5** (2013), 115-129.
  24. K. M. Allaire and **G. M. Watson**. Rho participates in chemoreceptor-induced changes in morphology to hair bundle mechanoreceptors of the Sea Anemone, *Nematostella vectensis*. *Journal of Comparative Biochemistry and Physiology, Part A*. **165** (2013), 139-148.
  25. R. Spears, C. Rivet, S. Killingsworth, **A. Kumar**, and J. Etheredge. "Designing and Creating a Game Engine for Use in the Classroom." *Computer Game Development and Education: An*

- International Journal*, Vol. **1**, number 1, March (2013), 1-20. B. N. Guidry and **M. W. Totaro**, MIS Students and the Systems Analysis and Design Course Project: A Proposed Experiential Approach, *International Journal of Innovation and Learning*, **13** (2013), 121-139.
26. B.G. Fitzpatrick, R. Scribner, **A. S. Ackleh**, G. Jacquez, J. Rasul, R. Rommel and N. Simonsen. Forecasting the Effect of the Amethyst Initiative on College Drinking. *Alcoholism: Clinical and Experimental Research*, **36** (2012), 1608-1613.
  27. **A. S. Ackleh**, K. Deng and X. Yang. Sensitivity Analysis for a Structured Juvenile-Adult Model. *Computers and Mathematics with Applications*, **64** (2012), 190-200.
  28. J.M. Cushing and **A. S. Ackleh**. A Net Reproductive Number for Periodic Matrix Models. *Journal of Biological Dynamics*, **6** (2012), 166-188.
  29. **A. S. Ackleh**, G.E. Ioup, J.W. Ioup, B. Ma, J.J. Newcomb, N. Pal, N. Sidorovskaia and C. Tiemann. Assessing the Deepwater Horizon Oil Spill Impact on Marine Mammal Population Through Acoustics: Endangered Sperm Whales. *Journal of Acoustical Society of America*, **131** (2012), 2306-2314.
  30. **A. S. Ackleh**, J. Carter, K. Deng, Q. Huang, N. Pal and X. Yang. Fitting a Structured Juvenile-Adult Model for Green Tree Frogs to Population Estimates from Capture-Mark-Recapture Field Data. *Bulletin of Mathematical Biology*, **74** (2012), 641-665.
  31. P. Zhang and **A. S. Ackleh**. A Discrete Stage-Structured Two Species Competition Model with Sexual and Clonal Reproduction. *Journal of Biological Dynamics*, **6** (2012), 2-16.
  32. J. R. Tanner, G. Stewart, **M. W. Totaro** and M. Hargrave. Business Simulation Games: Effective Teaching Tools or Window Dressing? *American Journal of Business Education*, **5** (2012), 115-128.
  33. A. Suli, **G. M. Watson**, E. W. Rubel and D. W. Raible. Rheotaxis in larval Zebrafish is mediated by lateral line mechanosensory hair cells. *PLoS ONE* **7** (2012), e29727.
  34. D. Todaro and **G. M. Watson**. Force dependent discharge of nematocysts in the Sea Anemone *Haliplanella luciae* (Verrill). *Bio Open*, **1** (2012), 582-588.
  35. **A. S. Ackleh**, J. Carter, N. Pal and X. Yang. A Case Study of Green Tree Frog Population Size Estimation by Repeated Capture-Mark-Recapture Method with Individual Tagging. *Journal of Statistical Computation and Simulation*, **81** (2011), 1879-1895.
  36. **A. S. Ackleh**, R. Chiquet and P. Zhang. A Discrete Dispersal Model with Constant and Periodic Environments. *Journal of Biological Dynamics*, **5** (2011), 563-578.
  37. **A. S. Ackleh**, B. Ma, P. Salceanu. Persistence and Global Stability in A Selection-Mutation Size-Structured Model. *Journal of Biological Dynamics*, **5** (2011), 436-453.
  38. **A. S. Ackleh** and R. Chiquet. Competitive Exclusion in A Discrete Juvenile-Adult Model with Continuous and Seasonal Reproduction. *Journal of Difference Equations and Applications*, **17** (2011), 955-975.
  39. **A. S. Ackleh**, B.G. Fitzpatrick, G.M. Jacquez, J. Rasul, R. Rommel, R. Scribner and N. Simonsen. Heavy Episodic Drinking on College Campuses: Does Changing the Legal Drinking Age Make A Difference? *Journal of Studies on Alcohol and Drugs*, **72** (2011), 15-23.
  40. **A. S. Ackleh**, K. Deng and Q. Huang. Stochastic Juvenile-Adult Models with Application to a Green Tree Frog Population. *Journal of Biological Dynamics*, **5** (2011), 64-83.
  41. J.E. Banks, J.D. Stark, R.I. Vargas and **A. S. Ackleh**. Parasitoids and Ecological Risk Assessment: Can Toxicity Data Developed for One Species be Used to Protect an Entire Guild? *Biological Control*, **59** (2011), 336-339.

42. B. Guidry, D. Stevens and **M. W. Totaro**. The Systems Analysis and Design Course: An Educators' Assessment of the Importance and Coverage of Topics. *Journal of Information Systems Education*, **22** (2011), 331-345.
43. W. Austin and **M. W. Totaro**. High School Students' Academic Performance and Internet Usage. *Journal of Economics and Economic Education Research*, **12** (2011), 41-54.
44. B. N. Guidry and **M. W. Totaro**. Convention Center Management: A Systems Analysis & Design Course Project. (Teaching Case) *Journal of Information Systems Education*, **22** (2011), 15-17.
45. D. Stevens, **M. W. Totaro** and Z. Zhu. Assessing IT Critical Skills and Revising the MIS Curriculum. *Journal of Computer Information Systems*, **51** (2011), 85-95.
46. W. Austin and **M. W. Totaro**. Gender Differences in the Effects of Internet Usage on High School Absenteeism. *Journal of Socio-Economics*, **40** (2011), 192-198.
47. **M. W. Totaro**, S. H. Y. Hsu and Z. Zhu. The SOA Platform for Small and Medium Businesses: A Conceptual Framework. *International Journal of Business and Systems Research*, **5** (2011), 22-34.
48. J. L. Mahoney, E. M. Graugnard, P. Mire and **G. M. Watson**. Evidence for Involvement of TRPA1 in the Detection of Vibrations by Hair Bundle Mechanoreceptors in Sea Anemones. *Journal of Comparative Physiology Series A*, **197** (2011), 729-742.
49. V. Naidu, V. B. Cherukuri, and **A. Kumar**. "Evaluation of Emerging Metrics for Multi-Focus Image Fusion." *GSTF Journal on Computing*, Vol. **1**, number 3, (2011), 67-70.
50. V. Naidu and **A. Kumar**. "An Image Fusion Algorithm for Remote Sensing based on Contourlet Transform," *GSTF Journal on Computing*, Vol. **1**, number 3, (2011), 61-65.
51. H. Boudreaux, **A. Kumar**, and J. Etheredge. "An Algorithmic and Software Engineering based Approach to Robust Video Game Design." *International Journal of Software Engineering & Applications (IJSEA)*, (2011), 35-48.

### **Journal Papers (Accepted)**

52. **A.S. Ackleh**, R.A. Chiquet, B. Ma, T. Tang, H. Caswell, A. Veprauskas, N. Sidorovskaia, Analysis of Lethal and Sublethal Impacts of Environmental Disasters on Sperm Whales Using Stochastic Modeling, *Ecotoxicology*, accepted for publication.
53. **A.S. Ackleh**, B. Ma, T. Tang, A High Resolution Finite Difference Method for a Model of Structured Susceptible-Infected Populations Coupled with the Environment, *Numerical Methods for Partial Differential Equations*, accepted for publication.
54. **A.S. Ackleh** and R.L. Miller, A Model for the Interaction of Phytoplankton Aggregates and the Environment: Approximation and Parameter Estimation, *Inverse Problems in Science and Engineering*, accepted for publication.
55. S.S. Menard, **G.M Watson**, Evidence for two populations of hair bundles in the sea anemone *Nematostella vectensis*. *Comparative Biochemistry and Physiology, Part A*. **208** (2017),14-23.
56. K. Pimie, **A. Kumar**, et. al., Design of a Secure, Robust, and Maintainable Parking Assistance System, *Int. Journal Software Engineering and Its Applications*.

## Book Chapters

1. **A.S. Ackleh**, B. Ma, X. Li, Parameter Estimation in a Size-Structured Population Model with Distributed States-at-Birth, System Modeling and Optimization, 27th IFIP TC 7 Conference, CSMO 2015 Sophia Antipolis, France, June 29-July 3, 2015, (L. Bociu, J.A. Desideri, A. Habbal, eds), IFIP AICT 494, (2017), 43-57.
2. **A. S. Ackleh** and P. L. Salceanu. Competitive Exclusion Through Discrete Time Models, Theory and Applications of Difference Equations and Discrete Dynamical Systems (Z. Alsharawi, J.M. Cushing, S. Elaydi, eds). Springer Proceedings in Mathematics & Statistics, Volume 102, (2014), 3-21.

## Conference Papers (Published)

1. A. Sammoud, **A. Kumar**, et. al. “Real-Time Streaming Challenges in Internet of Video Things”, accepted, IEEE International Symposium on Circuits and Systems, May 2017.
2. M. Fowler, T. Bolding, K. Hebert, F. Ducrest, and **A. Kumar**, “Design of a Cost-Effective Autonomous Underwater Vehicle”, *IEEE Syscon, IEEE Syscon 2016*.
3. N.A. Sidorovskaia , **A.S. Ackleh**, C.O. Tiemann, B. Ma, J.W. Ioup, G.E. Ioup, Passive Acoustic Monitoring of the Environmental Impact of Oil Exploration on Marine Mammals in the Gulf of Mexico, *Advances in Experimental Medicine and Biology*, 875(2016), 1007-1014.
4. **A. Kumar**, P. Kumar, A. Shelar, and V. Naidu. “Multi-Agent Based Intelligent System for Image Fusion,” *Third International Conference on Computational Science. Engineering and Information Technology (CCSEIT-2013)*, Konya, Turkey, 2013.
5. J.E. Banks, **A. S. Ackleh** and J.D. Stark. Population Models & Data in Applied Ecology: Surrogate Species. Simulation and Modeling Related to Computational Science and Robotics Technology. F. Kojima, F. Kobayashi and H. Nakamoto (eds.) *Proceedings Series*. IOS Press, Amsterdam, Netherlands, (2012), 34-43.
6. **A. S. Ackleh**, K. Deng and Q. Huang. Difference Approximation for an Amphibian Juvenile-Adult Dispersal Model. *Dynamical Systems Differential Equations. Discrete and Continuous Dynamical Systems Supplement, Proceedings of the 8th AIMS International Conf*, (2011), 1-12.

## Plenary and Keynote Presentations

1. **A.S. Ackleh**. *Population models with discrete or continuous trait spaces: Competitive exclusion or coexistence?* 7th Annual Conference of the Lebanese Society for the Mathematical Sciences (LSMS), Balamand, Lebanon, April 20-21, 2017 (Keynote).
2. **A. S. Ackleh**. *Competitive Exclusion and Coexistence in Discrete Population Models*. The 19th International Conference on Difference Equations and Applications. May 26 - 30, 2013, Muscat, Oman (Plenary).
3. **A. S. Ackleh**. *A Continuous Structured Model for Amphibians: Numerical Approximation and Parameter Estimation*. Third Palestinian Conference on Modern Trends in Mathematics and Physics. Hebron, Palestine, July 16-18, 2012, (Plenary).

4. **A. S. Ackleh.** *Selection-Mutation Models with and without Size Structure.* Biomath 2011: International Conference on Mathematical Methods and Models in Biosciences. Sofia, Bulgaria, June 15-18, 2011, (Keynote).
5. **A. S. Ackleh.** *A High Resolution Finite Difference Scheme for a Juvenile-Adult Amphibian Model.* Third Conference of the Euro-American Consortium for Promoting the Application of Mathematics in Technical and Natural Sciences. Albena, Bulgaria, June 20-25, 2011, (Plenary).

### Colloquia and Seminar Talks

6. **Ackleh, A. S.** Department of Physics, University of New Orleans, April 2017.
7. **Ackleh, A. S.** Dr. Karen A. Ames Series on Applied Mathematics, Department of Mathematical Sciences, University of Alabama at Huntsville, Alabama, March, 2017.
8. **Ackleh, A.S.** Department of Mathematics and Statistics, Sam Houston State University, Huntsville, Texas April, 2016.
9. **Watson, G. M.** The Whitney Marine Laboratory, St. Augustine, Florida, June, 2015
10. **Ackleh, A. S.** University of Stirling, Scotland, August, 2011.

### Invited and Other, Selected Conference and Workshop Talks

1. **A.S. Ackleh.** *A Model for the Interaction of Phytoplankton Aggregates and the Environment: Approximation and Parameter Estimation,* Joint Mathematical Meeting, Atlanta GA, January 4-7, 2017.
2. **A.S. Ackleh.** *Analysis of Lethal and Sublethal Impacts of Environmental Disasters on Sperm Whales Using Stochastic Modeling,* Gulf of Mexico Oil Spill and Ecosystem Science Conference, New Orleans LA, February 6-9, 2017.
3. **A.S. Ackleh.** *Combining Acoustic Data and Statistical Modeling to Understand Marine Mammal Population Dynamics and Abundance,* The 42nd IEEE International Conference on acoustics, Speech and Signal Processing (ICASSP), New Orleans, March 5-9, 2017 (Invited).
4. **S. Krayesky-Self, G.M. Watson,** *Sea anemones employ hair bundle mechanoreceptors to target spirocyst discharge to swimming appendages of prey.* Society Integrative Comparative Biology Abstract 35.1, New Orleans, January 2017.
5. **S.S. Menard, G.M. Watson,** *Sea anemone hair bundles are resilient to multiple types of trauma.* Society Integrative Comparative Biology Abstract.146.1, New Orleans, January 2017.
6. **K.A. Gundlach, G.M. Watson,** *Interspecific anemone mucus enhances cnida discharge in the anemone *Haliplanella luciae*.* Society Integrative Comparative Biology Abstract. 9.7. New Orleans, January 2017.
7. **D.J. Rogers, M. Hendrick, G.M. Watson, K.M. Smith,** *Calcium signaling in in GABAergic-cortical astrocyte co-culture is influenced by fibroblast growth factor receptor 1 (FGFR1).* Society Integrative Comparative Biology Abstract P1.20, New Orleans, January 2017.
8. **A. S. Ackleh.** *Competitive Exclusion and Coexistence in Discrete-Time Population Models.* IV International Conference on Approximation Methods for Design and Control. Universidad Nacional de San Martin, Buenos Aires, Argentina, November 5-6, 2015 (Invited).

9. **A. S. Ackleh.** *Understanding the Dynamics of Amphibians and Associated Diseases Using a Structured Modeling Approach.* 27th IFIP TC7 Conference, Sophia Tech Campus, Sophia Antipolis France, June 29- July 3, 2015 (Invited).
10. **A. S. Ackleh.** *Competitive Exclusion and Coexistence in Population Models.* MAA 77th Annual Meeting of the Oklahoma-Arkansas Section. Tulsa OK, April 10-11, 2015 (N.A. Court Lecture, invited).
11. **A. S. Ackleh.** *A General Structured Population Model with Application to Amphibians and Associated Diseases.* Joint Mathematical Meeting, San Antonio TX, January 9-14, 2015 (Invited).
12. D.J. Rogers, M. Jackson, H. Torres, B. Foret, **G.M. Watson**, KM Smith, *Calcium imaging of co-cultured GABAergic interneurons with FGFR1 knock out astrocytes.* Society for Neuroscience Meeting, Chicago Il, (2015).
13. Tang PC, Watson GM (2015) Repair of mammalian hair cells via sea anemone repair proteins. *Association Research Otolaryngology Abstract.* PD-18.
14. **A. S. Ackleh.** *A Structured Model for the Spread of Mycobacterium marinum.* The 10th AIMS Conference on Dynamical Systems. Differential Equations and Applications, Madrid, Spain, July 7-11, 2014.
15. **A. S. Ackleh.** *A Structured Model Forthe Transmission Dynamics of Mycobacterium Marinum Between Aquatic Animals.* SIAM Conference on the Life Sciences, Charlotte NC, August 4-7, 2014.
16. D.J. Rogers, P. Achi, J. Collette, **G.M. Watson**, K.M. Smith, *Imaging intracellular calcium waves in astrocytes of FGFR1 knockout mice.* Poster presentation at Society Neuroscience Annual Meeting, Washington DC. ,November, 2014
17. **M. W. Totaro.** (presenter) *Insights into IT.* Sponsored by South Louisiana Community College IT Club. South Louisiana Community College, Ardoin Building, Lafayette, Louisiana. February 6, 2013.
18. **A. S. Ackleh.** *Finite Difference Approximations for Measure-Valued Solutions of a Hierarchically Size-Structured Population Model.* The Fourth International Conference on Mathematical Modeling and Analysis of Populations in Biological Systems. Lubbock, Texas, October 4-6, 2013.
19. **A. S. Ackleh.** *Stability Analysis of Small Perturbations of Pure Selection Models on Measure Space., Modeling with Measure: From Structured Populations to Crowd Dynamics.* Leiden, The Netherlands, August 26-30, 2013, (Open Problem Lecture).
20. **A. S. Ackleh.** *Measure-Valued Solutions to Selection-Mutation and Structured Population Models.* Leiden, The Netherlands, August 26-30, 2013, (Tutorial Lecture).
21. P.C. Tang, **G.M. Watson**, *The dynamic nature of cadherin 23 in hair bundles of the model sea anemone Nematostella vectensis.* ASCB Abstract, New Orleans, December 2013..
22. **A. S. Ackleh.** *Persistence and Competitive Exclusion for a Nonautonomous Multi-Strain SIR Epidemic Model with Nonlinear Host Mortality.* Joint Mathematical Meeting. Boston, MA, January 4-8, 2012.
23. **A. S. Ackleh.** *A High Resolution Second-Order Computational Method for a Continuous Structured Erythropoiesis Model.* BIOCOMP 2012 Mathematical Modeling and Computational Topics in Biosciences. Vietri sul Mere, Italy, June 4-8, 2012.
24. **A. S. Ackleh.** *A Stage-Structured Dispersal Model with Constant and Periodic Environments.* Joint Mathematical Meeting. New Orleans, LA, January 6-9, 2011.



25. **A. S. Ackleh.** *Littoral Acoustic Demonstration Center – LADC: Assessing the Long-Term Impact and Recovery of Marine Mammal Populations after the Oil Spill in the Gulf of Mexico.* Marine Mammals Commission Annual Meeting. New Orleans, LA, May 10-12, 2011.
26. **A. S. Ackleh.** *Using Statistical Modeling and Acoustic Data to Assess the Gulf Oil Spill Impact on Sperm Whales.* Istanbul Conference on Mathematical Methods and Modeling in Life Sciences and Biomedicine 2011. Istanbul, Turkey, August 15-19, 2011.

### **Journal Referees**

- **A. S. Ackleh.** SIAM Journal of Applied Mathematics, Journal of Mathematical Biology, Journal of Biological Dynamics, Journal of Difference Equations and Applications, Discrete and Continuous Dynamical Systems Series B, Mathematical Biosciences and Engineering, Computers and Mathematics with Applications, Journal of Theoretical Biology, Journal of Scientific Computing, Nonlinear Analysis: Real World Applications, Inverse Problems in Science and Engineering.
- **M. W. Totaro.** Communications of the Association for Computing Machinery (CACM), Systems Research and Behavioral Science (SRBS), Journal of Computer Information Systems.

### **Organized Special Sessions or Conferences**

- **A.S. Ackleh.** Co-organizer of the special session on Fusion of Bio-physical data and Predictive Modeling to Understand Gulf of Mexico Marine Species Resilience to Environmental Stresses and Disasters, Gulf of Mexico Oil Spill and Ecosystem Conference, Tampa Florida, February 1-4, 2016.
- **A. S. Ackleh.** Co-organizer of the Fifth Conference of the Euro-American Consortium for Promoting the Application of Mathematics in Technical and Natural Sciences. Albena, Bulgaria, June 24-29, 2013.
- **A. S. Ackleh.** Co-organizer of the workshop Modeling with Measures: from Structured Populations to Crowd Dynamics. Lorentz Center, Leiden, The Netherlands, August 26-30, 2013.
- **A. S. Ackleh** and P. Salceanu. Co-organizers of the special session on Modeling in Biology, Ecology and Epidemiology. Third Conference of the Euro-American Consortium for Promoting the Application of Mathematics in Technical and Natural Sciences. Albena, Bulgaria, June 20-25, 2011.

### **Graduate Student Production**

Ph.D. Students or M.S. Students who Graduated (Chair/Co-Chair of Committee)

\*denotes students who have received support from external grants.

#### **2016**

- Xinyu, Li (Ph.D.), Advisor: **A.S. Ackleh**

#### **2015**

- Robert Miller (Ph.D.), Advisor: **A. S. Ackleh**

- Vinodh Chellamuyhu (Ph.D.), Advisor: **A. S. Ackleh**
- Pei-Ciao Tang (Ph.D.), Advisor: **G. M. Watson**

## **2014**

- Mark Delcambre (Ph.D.), Advisor: **A. S. Ackleh**
- Warnesha Calais (M.S.), Advisor: **G.M. Watson**

## **2012**

- Baoling Ma (Ph.D.), Advisor: **A. S. Ackleh**
- Kate Allaire (M.S.), Advisor: **G. M. Watson**
- Aaron Boudreaux (Ph.D.), Advisor: **Ashok Kumar**

## **2011**

- Qihua Huang (Ph.D.), Advisors: **A. S. Ackleh** and K. Deng
- Pei Zhang (Ph.D.), Advisor: **A. S. Ackleh**

## **Funding**

### **External Funding**

#### **A. S. Ackleh**

- Co-Principal Investigator. Gulf of Mexico Research Initiative Fund. Littoral Acoustic Demonstration Center: Gulf Ecological Monitoring and Modeling (LADC:GEMM), 2015-2017, \$5,238,174.
- Principal Investigator. National Science Foundation. Nonautonomous Structured Population Models with Application to Amphibians and Associated Diseases. 2013-2016, \$235,000. Grant number DMS-1312963.
- Principal Investigator. U.S. Department of the Interior. Computer Simulation Model Upgrade for Hurricane, Sea-Level, and Wetland Ecosystem Application. 2013-2016, \$176,794. Grant number G13AC00373.
- Principal Investigator. U.S. Department of the Interior, US Geological Survey. Modeling Population with Explicit Spatial Component. 2013-2014, \$26,500. Grant number G13AC00333.
- Principal Investigator. U.S. Department of the Interior, US Geological Survey, Graphic Visualization Tool and Animation Product of Mekong River Flow, Dam Effects and Impact on Food Security. 2011-2016, \$194,145. Grant number G11AC20139.
- Principal Investigator. U.S. Department of the Interior, US Geological Survey, Modeling Nutria Dynamics. 2011-2012, \$16,000.
- Principal Investigator. National Science Foundation. RAPID: Modeling of Short-Term and Long-Term Marine Mammal Population Trends in the Vicinity of the Deepwater Horizon Oil Spill Using Passive Acoustic Monitoring Cues. 2010-2011, \$192,197. Grant number DMS-1059753.
- Principal Investigator, National Science Foundation, UBM: Training Undergraduate Students in Mathematics and Biology at UL Lafayette, 2005-2011, \$534,000. Grant number DUE-0531915.

## **M. W. Totaro**

- Yuan An, **M.W. Totaro**, C. Chen, T. Hu, W. Ke, J. Li, X. Lin, M. Rogers, V. Raghavan, I-Y. Song, W. Xu. *Multi-Industry Semantic Discovery Tool Sets for Data Integration, Data Warehousing, and E-Science*. Funded project (July 2012 – Jun 2013), Center for Visual and Decision Informatics (CVDI): An NSF Industry/University Collaborative Research Center. University of Louisiana at Lafayette, Drexel University; \$132, 200 (funded).
- S. Dwivedi and **M.W. Totaro**. *Developing Multidisciplinary Lean Manufacturing Course through Virtual Reality and Inquiry-Based Learning*. BORSF, \$154,239, BORSF Multidisciplinary (2009-10), \$139,957 (funded).

## **A. Kumar**

- Principal Investigator. Louisiana Board of Regents. RCS Award, “Design and Development of Coordination and Control Mechanisms for Sensor-enabled Software Systems.” 2009-2014, \$113,424.
- Co-Principal Investigator. Louisiana Board of Regents. Enhancement Grant, “Laboratory for Research and Curriculum Development Projects in Video Game Design and Development” with Jim Etheredge. 2012-2013, \$47,702.
- Co-Principal Investigator. Louisiana Board of Regents. Multidisciplinary Grant, “Development of Lean Manufacturing Course through Virtual Reality and Inquiry-Based Learning” with Suren Dwivedi (PI) and other co-PIs. 2009-2011, \$139,957.
- Co-Principal Investigator. National Science Foundation. “Collaborative Research: MCTech - STEM Careers in Shipbuilding and Marine Industry” with Suren Dwivedi (PI), 2009-2013, Award number DUE-0903314, \$72,588.
- Co-Principal Investigator. National Science Foundation. “CRI: MEMS Integration Infrastructure” with M. Bayoumi, Mohamed Elgamel (Co-PI), Mohammad Madani (Co-PI), Award number CNS-0551478, funded 2006-2011, \$298,848.

## **Other**

### **Awards/Honors**

- **M.W. Totaro**. Virtual Desktop Infrastructure (VDI) for Undergraduate Students: School of Computing and Informatics. Student Technology Enhancement Program (STEP), University of Louisiana at Lafayette; \$18,187.10. (Funded: 2012)
- **M.W. Totaro**. UL Lafayette Award for Excellence in Academic Advising, 2012 Academic Year. (Received 2013)
- **M.W. Totaro**. UL Lafayette Award for Excellence in Academic Advising, 2011 Academic Year. (Received 2012)

### **Other Professional Activities**

- **A.S. Ackleh**. Director of Computational and Visualization Enterprise (CAVE). University of Louisiana at Lafayette, 2010-2013.

## **Offices Held and Professional Memberships**

- **A.S. Ackleh**, American Mathematical Society (AMS)
- **A.S. Ackleh**, Society of Mathematical Biology (SMB)
- **A.S. Ackleh**, Society of Industrial and Applied Mathematics (SIAM)
- **A.S. Ackleh**, International Society of Difference Equations (ISDE)
- **M.W. Totaro**, Professional Member, Association of Computing Machinery (ACM)