

The College of Arts & Sciences

Presents the 6th Annual

SEASTARS

Scholars of Engineering, Applied Sciences & Technology Annual Research Symposium

Thursday, April 16, 2009

Commons Conference Center

9 - 11 a.m. Judging

2 - 3 p.m. Public Viewing

3 - 4 p.m. Awards Ceremony

www.uwf.edu/seastars

Advisory Committee Members

Dr. Matthew Schwartz, Environmental Studies, Chair

Dr. Lakshmi Prayaga, Computer Science, Co-Chair

Dr. John Bratten, Anthropology

Dr. Phillip Ryals, Biology

Dr. Tim Royappa, Chemistry

Dr. Ezzat Bakhoun, Electrical & Computer Engineering

Dr. Florentina Tone, Mathematics & Statistics

Ms. Julia Babb, Nursing

Dr. Laszlo Ujj, Physics

Dr. Laura Koppes, Psychology

Dr. Eman El-Sheikh, Coordinator
Administrative Fellow, CAS Dean's Office

Awards Ceremony Schedule

3:00 – 4:00 p.m.

- ✖ Welcome and Advisory Committee Recognition
Dr. Eman El-Sheikh
- ✖ Recognition of SEASTARS Supporters & Sponsors
- ✖ Department Awards
“Best of Department” presented by the SEASTARS
Advisory Committee
- ✖ Special Awards presented by Dr. Eman El-Sheikh
Gaming Awards
Simulation Awards
Audience Choice Award
- ✖ Dean’s Award
“Best Collaborative Effort” presented by
Dr. Jane Halonen, Dean, College of Arts & Sciences
- ✖ Provost’s Award
“Best Research Emphasizing Excellence in Teaching &
Learning” presented by Dr. Chula King, Provost
- ✖ President’s Award
“Best of Show” presented by Dr. Richard Podemski,
Associate Vice President for Research and Dean of Graduate Studies
- ✖ Door Prize Drawings
- ✖ Conclusion

LIST OF POSTERS

ANTHROPOLOGY & ARCHAEOLOGY

- 1. The Submerged History of Kentucky Lake**
Tiffany Goldhamer and Dr. John Worth
- 2. Hispanic: History and Use of a Generic Term**
Ashley Shidner, Heidi Davis and Dr. A. Joanne Curtin
- 3. The Zooarchaeology of Shipwrecks: Conservation and Preliminary Analysis of Faunal Remains from the Emanuel Point Wrecks**
Jacob Shidner and Dr. John Bratten

BIOLOGY

- 4. Site Fidelity and Dispersion of Reef Fishes Tagged at Unreported Artificial Reef Sites off Pensacola, Florida**
Dustin Addis, Mike Dance and Dr. Will Patterson
- 5. A Comparative Study of Thermal Tolerance in Indo-Pacific Air-Breathing Fishes**
Joni E. Barreda and Dr. Wayne A. Bennett
- 6. Is Post-feeding Thermotaxis Advantageous in Elasmobranchs?**
Valentina Di Santo and Dr. Wayne A. Bennett
- 7. Effects of Calcium: Magnesium Ratios on the Change in Growth in Florida Apple Snails, *Pomacea paludosa* (Say)**
Dominique L. Gueringer and Dr. Philip C. Darby
- 8. Detection and Quantification of *Campylobacter* spp. in Recreational Waters and Their Potential Sources of Contamination**
Kristen N. Hellein, Eric Tauchman, D. Lund, C. Battie, and Dr. Joe E. Lepo
- 9. *Bacteroides* spp. and *Methanobrevibacter smithii* as Indicators of Human Fecal Contamination in Recreational Waters**
Elizabeth M. Kennedy, Abedemi Ajidahun, Crystal Spencer and Dr. Joe E. Lepo
- 10. Recruitment Dynamics of Juvenile Gray Snapper, *Lutjanus griseus*, Among West Florida Coastal and Marine Ecosystems**
Cecelia Lounder, Dr. Will Patterson, Mr. Robert J. Allman, Dr. Richard S. McBride
- 11. Molecular Analysis of MRSA**
Ektaa Patel and Dr. Kristina Behan
- 12. Bioaccumulation of PCBs and Mercury in Marine Fishes in the North Central Gulf of Mexico**
Dr. Will Patterson, Dr. Richard Snyder, Suzi Gibson and Dr. Ranga Rao
- 13. The Effect of pH on Glucose Measurement With Contour Using Participants With Sickle Cell Trait and Without Sickle Cell Trait**
Ruth Vargas and Dr. Kristina Behan

CHEMISTRY

- 14. Bioconversion of formestane by *Rhizopus oryzae* ATCC 11145**
Anne Marti and Dr. Glenroy D. A. Martin
- 15. Photo-toxicity of Various Quinone Compounds**
Paul Novotny, Nicole Haubrich, Luther McDonald, Michael Cochran, Julia Serdula, Dr. Wade Jeffrey, Dr. Pamela P. Vaughan

16. Synthesis of a Fluorescent Indicator for Nerve Gas

Ian Walton and Dr. Michael T. Huggins

CLINICAL LABORATORY SCIENCES

17. The Molecular Perspective of Cystic Fibrosis

Jenny Paige and Dr. Kristina Behan

COMPUTER SCIENCE

18. Integrating New Technologies Using a Well-Defined Software Process

Joseph C. Brodersen and Dr. Laura J. White

19. Serious Gaming For Girls (Mall Crawl)

Jessie Brown, Adrienne Wallace, Tessa Love, Dr. Lakshmi Prayaga

20. A Human-Robot Team Navigation System for Complex Environments

John Carff, Dr. Eman El-Sheikh, Mr. Matthew Johnson and Dr. Jerry E. Pratt

21. Computer Simulation of the Human Metabolism System

Angie Cox and Dr. Jacalyn Huband

22. Using a Game Environment to Demonstrate Physics Principles

Jonathan Frisch, David Foley and Dr. Chandra Prayaga

23. Parachute Jump

James J Kelly and Dr. Chandra Prayaga

24. Hurry Up and Wait: A Comparison of the Average and Memetic Methods for Multiprocessor Scheduling

Daniel Martin and Dr. Jacalyn Huband

25. Serious Game for the Digital Preschooler

Martina Mueller and Dr. Lakshmi Prayaga

26. Discovering Causal Connections between Brain Regions from Functional MRI Data

Carlos Perez, Dr. Eman El-Sheikh and Dr. Clark Glymour

27. Learning and Representing Causal Relationships with Bayesian Networks

Carlos Perez and Dr. Eman El-Sheikh

28. An Exercise in Fighting-Game Physics

Andrew S. Rivers, Joshua M. flow and Dr. Chandra Prayaga

29. Design and Implementation of a Two-Dimensional PC Video Game

Ryan Sharpe and Dr. Jacalyn Huband

30. Where Do We Go From Here? An Approach and System for Path Understanding Using Geospatial Natural Language

Bradley A. Swain and Dr. Eman El-Sheikh

31. An Application for Automated Image Processing of Stingray Digestion X-Rays

Daniel L. Wells, Dr. Eman M. El-Sheikh, Dr. Melanie A. Sutton, Valentina Di Santo, and Dr. Wayne A. Bennett

ECE

32. Alarm-Triggered Web-Connected Video Surveillance System

Nicholas Alexander Chan and Dr. Mohamed Khabou

ENVIRONMENTAL STUDIES

33. A temporal and spatial analysis of phytoplankton community structure and abundance in Choctawhatchee Bay and Pensacola Bay estuaries

Yamini Amin and Dr. Matthew Schwartz

34. Nutrient Regimes and Hydrologic Fluxes in Two Bayous of Western Choctawhatchee Bay

Alison McDowell and Dr. Matthew Schwartz - **WITHDRAWN**

35. DDT Concentrations in Soils in Sprayed and Unsprayed Areas of Two Towns in Southern Belize

Michael Somerville and Dr. Johan Liebens

MATHEMATICS & STATISTICS

36. A Cluster Analysis of Pediatric Cancer Rates in Florida

Alexander Bohnert and Dr. Raid Amin

37. Cryptography Throughout Time, a Look at Symmetric and Public-Key Cryptosystems

Nicholas Brewer and Dr. Rohan Hemasinha

38. Statistical Analysis of Gene Expression Microarrays

Annie Dodson and Dr. Raid Amin

39. Computing Jacobians: An Alternative Method

Shannon Langan and Dr. Subhash Bagui

40. Living Mathematics. An examination of the connections between mathematical theory and our physical world

Lauren Rex and Dr. Morris Marx

41. Stochastic Generation of Music

Michael Rubey and Dr. Morris Marx

42. Drafting: can it be safe?

Winston Zhao and Dr. Florentina Tone

NURSING

43. Preference of Mentoring Activities in a Sample of Registered Nurses in Florida: A Multigenerational Profile using the Alleman Mentoring Activities Questionnaire; Results from the Pilot Study

Patricia Posey-Goodwin

PHYSICS

44. Through the Looking Glass: Removal of Image Aberrations by Optical Phase Conjugation in Rhodamine 6-G

Charles Amos, Jon Welch, Dr. Laszlo Ujj, and Dr. Chandra Prayaga

45. Feasibility of an Autonomous Turret Implementing a Computer Vision Based Control System

Eric Clemons

46. Development of a High-resolution AC Susceptometer for Materials Research and Science Education

Ross Dickinson, Jeremy Munn, Charles Amos, Dr. Chandra Prayaga, Dr. Laszlo Ujj, and Dr. Guoqing Wu

47. Do Penguins Know Physics?

Robert Maynard, Elizabeth Carnes and Dr. Chandra Prayaga

48. Investigation of a Molecular Rotor with Vibrational Spectroscopy

Jon Welch, Charles Amos, Scott Miller, Dr. Chandra Prayaga, Dr. Guoqing Wu, and Dr. Laszlo Ujj

49. Optical Switching by Non-linear Interferometry

Jon Welch, Charles Amos, Dr. Chandra Prayaga, and Dr. Laszlo Ujj

PSYCHOLOGY

50. Prevalence of Victim Blaming and Perceived Vulnerability Amongst College Women

Alicia Harriott and Dr. Susan Walch

51. Reliability and Validity of the Visual Analog Mood Scales (VAMS) in Non-English Speaking Pain Patients

Erica House, James Arruda, Frank Andrasik, Licia Grazzi

52. The Effect of Regulatory Focus on Airport Security Luggage Screening

Eileen Linnabery and Dr. Steven Kass

53. Impact of a Live Transgender Panel Presentation on Attitudes Toward Transgender Individuals

Kimberly Sinkkanen, Dr. Susan Walch, Elisabeth Swain, Jacquelyn Francisco, Cassi Breaux, Chandra Kirby, and Enoch Walls

SEASTARS

Scholars of Engineering, Applied Sciences & Technology Annual Research Symposium

The College of Arts & Sciences (CAS) is dedicated to the promotion of student and faculty research, scholarship, and creative activity as a vital component in the curriculum at the University of West Florida. Higher education in science, technology, engineering, and mathematics has long been recognized to benefit from research-rich environments and inquiry-based learning. Through the continuation of this annual symposium, the goal of the college is to create a forum for the communication, celebration, and promotion of scientific knowledge.

Special Thanks to SEASTARS Supporters:

Dr. Judy Bense, UWF President

Dr. Chula King, UWF Provost

Dr. Richard Podemski, UWF Associate Vice President for Research and
Dean of Graduate Studies

Dr. Jane Halonen, Dean, College of Arts & Sciences

Participating CAS Departments:

Anthropology & Archaeology

Environmental Studies

Biology

Mathematics & Statistics

Chemistry

Nursing

Clinical Laboratory Sciences

Physics

Computer Science

Psychology

Electrical & Computer Engineering

Additional Judges:

Dr. Sam Mathews, Psychology

Mr. Christopher Secord, ITS

Mr. Peter Washburn, ITS

Administrative Support:

Mrs. Karen Goldschmidt, CAS Technology Support

Mrs. Judy Jones, Program Specialist, CAS Dean's Office

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