



3RD FLOOR

Design and construction of a nitrogen gas adsorption device

Kale E. King, Savanna Ward, Amelia Leenig, Abayomi D. Olaitan, & Dr. Karen S. Molek

Synthesis and Characterization of Solution Processable n-Channel pi-Conjugated Polymers and Device Applications

Amanda Tonnaer, Neal Patel, Prahul Topiwala, Zhibo Yuan, & Elsa Reichmanis*

Photo-induced Spin Crossover Phase Transitions of $[Fe(HTrz)_2(trz)](BF_4)$ Nanoparticles within the Thermal Hysteresis Loop

Aaron Mena, Daniel Munteanu, Thomas Dixon, Cecelia Gentle, Brittany Hagler, Dr. Offir Cohen, & Dr. Renske van der Veen

4TH FLOOR

Synthetic Methods for Benzo[b] thiophene derivatives via Electrophilic Cyclization and Anion Relay Chemistry

Ralf Romero*, Cory Kornman, Amanda Tonnaer, Amanda Hayes, & Dr. Tanay Kesharwani

Fractionation and Biological Toxicity Studies of Oil/Water Accommodated Fractions with Dispersant

Cheyenne Brannon & Dr. Pamela P. Vaughan

4TH FLOOR

The Synthesis and Characterization of Novel Highly Fluorescent Polycyclic Azaborine Chromophores

Lacey L. Magill, Julie A. Wilson, Andrew R. Schroeder, Sarah E. Harrell, Luke C. Warrensford, Brandon Hinderks, Caleb D. McClinton, Jessica A. Vaughn, Bria M. Wagner, Nicolle S. Jackson, Dr. Carl J. Saint-Louis, Dr. Alan K. Schrock,* and Dr. Micheal T. Huggins*

Synthetic Methods for Benzo[b] thiophene derivatives via Electrophilic Cyclization and oxidative iodocyclization MCR

Cory Kornman*, Ralf Romero, Amanda Tonnaer, Amanda Hayes, & Dr. Tanay Kesharwani

Synthesis, characterization, and growth kinetics of surface modified zinc oxide quantum dots at room and cold temperatures

De'Zhanae M. McCall-Butler, Sabina C. Cabrera, Christopher Walter, Brandon A. Colon, Aaron D. Mena, Dillion A. Francis, Jessica Davis-Gunn, Jessica Cook, Dr. Timothy Royappa, Dr. Pamela P. Vaughan, Dr. Alan K. Schrock, Abayomi D. Olaitan, & Dr. Karen S. Molek

3RD FLOOR

COMPUTER SCIENCE

Climate Data Analysis using the Hadoop Distributed File System

William B. Spaid III, Dr. Jason Ortegren, & Dr. Dallas Snider

An Evaluation of Machine Learning Algorithms for Classification of Shelter Animal Outcomes

Mikayla Timm & Dr. Eman El-Sheikh

PankRank and Markov Chains-Solving Linear Systems

Valeria Gamboa & Dr. Jia Liu

2ND FLOOR

ENGINEERING

The role of arm configuration to the stability of human-robot physical interaction

Spencer Lash & Dr. Oscar Chuy

The Implication of Renewables, BES, and EV's in a Sustainable Power System

Eric D. Collins & Dr. Bhuvana Ramachandran

Electric Powered Wheelchair Control Addressing User and Terrain Interaction

Everette Petsinger & Dr. Oscar Chuy

Using Demand Response as Resource in Distribution Grid Operation

Armand Keyhani & Dr. Bhuvana Ramachandran

A Novel Statistical Approach to Short Term Electricity Price Forecasting

Winston Riley, Dr. Bhuvana Ramachandran, & Dr. Achraf Cohen

4TH FLOOR

ENVIRONMENTAL SCIENCE

Detection of DDT in Wetland Sediments, Escambia Bay, Florida

Edward Stamborski, Dr. Geoffrey Marchal, & Dr. Johan Liebens

Algae to fuel: initiating a green fuel project to create coal from local marine algae

Arnesha Harris, Shawnee Doling-Tye, Dr. Allison Schwartz,
Dr. Matthew Schwartz, & Dr. Alan K. Schrock

Oceanic Precursors to Tornado Outbreaks

Tyler Mitchell, Rebecca Foglietti, & Dr. Jason Ortegren

Examining the effect of gravel lag on beach sediment transport at Santa Rosa Island

Tynon Briggs & Dr. Phillip Schmutz

MATHEMATICS

The Impact of Quizzes & Workshops on the Performance of Calculus I Students & the Effect of Calculus on Retention in STEM Majors at UWF

Jonathan Guy & Dr. Anthony Okafor

Numerical solvers for Ordinary and Partial Differential Equations

Nicholas Dunn & Dr. Jia Liu

PHYSICS

Using Inversion/Rotational Symmetries to Enhance Exact Diagonalization Performance

Spencer Leeper & Dr. Christopher N. Varney

LIBS of LIB: Lithium Identification of Batteries Using LIBS

Trevor Olsson, Zachary Gryb, & Dr. Laszlo Ujj

High Spectral Resolution LIBS Measurements on Calcium Carbonate Structures: Calcite and Sea Shells

Zachary Gryb, Trevor Olsson, & Dr. Laszlo Ujj

Fabrication and Characterization of Langmuir(-Blodgett) Thin Films of Fatty Acids, Benzene Derivatives, and Their Salts

Michael Taylor, Andrew Truman, Ross Goodwin, Katherine Lyster,
Tyler Milkeris-Zellar, Dr. Chandra Prayaga, & Dr. Aaron Wade

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**SYM
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2016
August 5

2ND ANNUAL SYMPOSIUM

The Hal Marcus College of Science and Engineering (HMCSE) Summer Undergraduate Research Program (SURP) is designed to expose undergraduate students to advanced research in their field of study. The selected students spent 250 hours or more working on a research project in their program of study and in close supervision of a faculty mentor. The SURP engaged students in hands-on learning experiences in order to help them be truly competitive once they leave the University.

AGENDA

10:00 Poster Session

Poster presentations are listed by department & floor

12:00 Lunch, 1st Floor



SURP

SUMMER
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RESEARCH
PROGRAM

Hal Marcus
College of Science and Engineering

UNIVERSITY of WEST FLORIDA