Keynote Speaker and Meeting Program

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KEYNOTE ADDRESS

Beyond Hubble: A New Era in Astronomy with NASA's James Webb Space Telescope

For over 20 years, the Hubble Space Telescope has been revealing the unknown cosmos; this single scientific instrument has completely revolutionized our understanding of the Universe. In 2009, the complete refurbishment of Hubble gave new life to the telescope and has produced groundbreaking science results, revealing some of the most distant galaxies ever discovered. Despite the remarkable advances in astronomy that Hubble has provided, the new questions that have arisen demand a new space telescope with new technologies and capabilities. I will present the exciting new technology development and science goals of Hubble's 100x-more-powerful successor, NASA's James Webb Space Telescope, which is currently being built and tested and will be launched later this decade.

Dr. Amber Straughn is an Astrophysicist at NASA's Goddard Space Flight Center in Greenbelt, MD and serves as the Deputy Project Scientist for James Webb Space Telescope Communications & Outreach.

Amber grew up in the small farming town of Bee Branch, Arkansas where her fascination with astronomy began under beautifully dark, rural skies. She obtained her B.S. in Physics at the University of Arkansas in Fayetteville in 2002, and completed her M.S. and Ph.D. in Physics at Arizona State University in 2008. She has been involved in NASA Education and Research programs since her undergrad years, beginning with flying an experiment on NASA’s microgravity KC-135 plane (the “vomit comet”) in 2001. During graduate school at Arizona State, Amber received the NASA Space Grant Fellowship for summer studies, and in 2005 was awarded the 3-year NASA Harriett Jenkins Pre-doctoral Fellowship.

Amber’s research focuses on interacting and star-forming galaxies in the context of galaxy assembly, and she has most recently been working on infrared spectroscopic data from the new Wide Field Camera 3 (WFC3) on Hubble Space Telescope. Her broad research interests include galaxy formation and evolution, galaxy mergers and interactions, physical processes induced by galaxy interactions including star formation and black hole growth, emission-line galaxies, and dark energy and its effect on the galaxy merger rate. In addition to research, Amber’s role with the James Webb Space Telescope project involves working with Communications and Outreach activities. She has participated in extensive public speaking events locally, nationally, and internationally. Amber has also done several live television interviews, media features for NASA (see http://www.nasa.gov/topics/technology/features/webb-faqs.html), and appeared in the Late Night with Jimmy Fallon's "Hubble Gotchu" segment that aired in August 2010, and has interviewed for documentaries. She very much enjoys interacting with the public.

Amber lives in Glenn Dale, MD, with her husband Matt and her two Great Danes and one cat. Outside of her NASA work, she is a yoga teacher and is currently training for her private pilot's license.
MEETING REPORT

SECTION PROGRAMS

ORAL PRESENTATIONS

(Presenter is underlined)

PHYSICS AND ENGINEERING 207

1:00 DETECTION & RANGING SYSTEMS FOR PROXIMITY FLIGHT OF COOPERATING 6U CUBESATS
Mustafa Bayraktar1, Yupo Chan1, Po-Hao Adam Huang2, Edmond W. Wilson, Jr. 1University of Arkansas for Medical Sciences, 2Univ. of Arkansas, Fayetteville, 3Harding University

1:15 DESIGN OF CCD ARRAY DETECTOR FOR A CZERNY-TURNER SPECTROGRAPH
Brennan Thomason, Tamara Reed, and Edmond Wilson. Harding University

1:30 SOFTWARE DEVELOPMENT FOR A DIODE LASER SPECTROMETER
Amlam Niragire, Chih Hao Wu, and Edmond Wilson. Harding University

1:45 OPTICAL ABSORPTION PROPERTIES OF GLANCING ANGLE DEPOSITED NONSTATE ARRAY ARRAYS IN DIFFERENT GEOMETRIES
Hilal Cansizoglu1, Mehmet Cansizoglu1, Miria M. Finckenor2, and Tansel Karabacek1. 1University of Arkansas at Little Rock, 2NASA Marshall Space Flight Center

2:00 TORNADO-TERRAIN INTERACTION EFFECTS ON TORNADO DAMAGE USING GOOGLE EARTH
Nawfal Ahmed, R. Panneer Selvam, University of Arkansas

CHEMISTRY & BIOCHEMISTRY 208

1:00 BOND LENGTH / BOND VALENCE RELATIONSHIPS FOR IRON-IRON, IRON-SULFUR, AND SULFUR-SULFUR BONDS
Weiyu (Daniel) Lu, and Franklin D. Hardcastle. Arkansas Tech University

1:15 SYNTHESIS AND CHARACTERIZATION OF TRANSITION METAL COMPLEXES WITH HEXADENTATE HEMI-CAGE LIGAND
Megan Fuller, and Anwar Bhuiyan. Arkansas Tech University

1:45 ATOMIC ORBITAL EXPONENTS FROM VALENCE-LENGTH RELATIONSHIPS
Franklin D. Hardcastle. Arkansas Tech University

2:00 HYPOCHLOROUS ACID AS A METHOD OF SWIMMING POOL SANITATION
Kelton Schleyer, and Dennis Province. Harding University

CELL & MOLECULAR BIOLOGY 209

1:00 EVALUATING THE ROLE OF MEIOTIC GENES IN DNA REPAIR USING RNAi
Youmna E. Moufarrej, Sydney L. Haldeman, Emily R. Cariker, and Andrew M. Schurko. Hendrix College

1:15 COLLAGEN TARGETING MECHANISM OF BACTERIAL COLLAGENASE
Joshua Sakon. University of Arkansas

1:30 ACETAMINOPHEN INCREASES STYRENE BIOACTIVATION TO A TOXIC METABOLITE BY CYP2E1
Jessica H. Hartman, and Grover P. Miller. University of Arkansas for Medical Sciences

1:45 WARFARIN METABOLITE PROFILES REVEAL THE IMPORTANCE OF FACTORS ON PATIENT DOSE-RESPONSES TO ANTICOAGULANT THERAPY
Dakota Pouncey. Hendrix College

2:00 DISCOVERY AND GENOMIC ANALYSIS OF TWO NOVEL MYCOBACTERIOPHAGES
Alyssa Stubblefield, Nathan Reyna, and Ruth Plymale. Ouachita Baptist University

VERTEBRATE BIOLOGY 210

1:00 URBAN STREAM SYNDROME IN A SMALL TOWN: A COMPARATIVE STUDY OF SAGER AND FLINT CREEKS
T.S. Wakefield. John Brown University

1:15 ONSET OF SCALE FORMATION IN ALLIGATOR GAR
Anthony V. Fernando, and Steve E. Lochmann. Department of Aquaculture and Fisheries, University of Arkansas at Pine Bluff

1:30 DETERMINING INDIVIDUALISTIC VOCAL CHARACTERISTICS OF PANTHERA TIGRIS AND IMPLICATIONS FOR ACOUSTIC MONITORING OF IN-SITU POPULATIONS
Courtney Elizabeth Dunn, and Mary Victoria McDonald. University of Central Arkansas

Journal of the Arkansas Academy of Science, Vol. 68, 2014
1:45 SIZE AND AGE RECORDS FOR AN ARKANSAS SPECIMEN OF THE AMERICAN BULLFROG, LITHOBATES CATESBEIANUS (ANURA: RANIDAE), FROM NORTHEASTERN ARKANSAS
Stanley E. Trauth, and Timothy A. Welch. Arkansas State University

2:00 DISTRIBUTION OF THE NORTHERN LONG-EARED BAT (MYOTIS SEPTENTRIONALIS) IN ARKANSAS
D.B. Sasse1, M.J. Harvey2, J.J. Jackson3, P.R. Moore4, R.W. Perry3, T.S. Risch1, D.A. Saugéy5, and J.D. Willhite2.
1Arkansas Game and Fish Commission, 2Tennessee Technological University, 3Jackson Environmental, 4Arkansas State University, 5U.S. Forest Service, 6Nightwing Consulting

2:15 VARIATION IN THERMALLY INDUCED CROSS-PROTECTION IN CHANNEL CATFISH EXPOSED TO AN AMMONIA CHALLENGE
Sindhu Kaimal, and Alf H. Haukenes. University of Arkansas-Pine Bluff

INVERTEBRATE BIOLOGY Liberty Room
CHAIR: Ryan Stork

1:00 NEW HOST AND DISTRIBUTION RECORDS OF THE LEECH PLACOBDELLA MULTILINEATA MOORE, 1953 (HIRUDINIDINA: GLOSSIPHONIDAE)
1Smithsonian Institution, National Museum of Natural History, 2Quinnipiac University, 3Eastern Oklahoma State College, 4Missouri Department of Conservation, 5Arkansas State University

1:15 NEW HOST AND LOCALITY RECORDS FOR THE FISH LEECHES MYZOBDELLA LUGUBRIS AND MYZOBDELLA REDUCTA (HIRUDINIDINA: PISCICOLIDAE) FROM ARKANSAS AND OKLAHOMA
Dennis J. Richardson1, William E. Moser2, Chris T. McAllister3, Renn Tumilson1, Charlotte I. Hammond4, Henry W. Robison5, David A. Neely6, Quinnipiac University1, 2Smithsonian Institution, National Museum of Natural History, 3Eastern Oklahoma State College, 4Henderson State University, 5Southern Arkansas University, 6Tennessee Aquarium Conservation Institute

1:30 A REVIEW OF SYMBIOTIC RELATIONSHIPS IN STENOPODIDEAN SHRIMPS
Joseph W. Goy. Harding University

1:45 MISCELLANEOUS FISH HELMINTH PARASITE (TREMATODA, CESTODEA, NEMATODA, ACANTHOCEPHALA) RECORDS FROM ARKANSAS.
C.T. McAllister1, C.R. Bursey2, H.W. Robison3, D.A. Neely4, M.B. Connor5, and M.A. Barg6. Science and Mathematics Division, Eastern Oklahoma State College, Idabel, OK 74745; 2Department of Biology, Pennsylvania State University, Shenango Campus, Sharon, PA 16146; 39717 Wild Mountain Drive, Sherwood, AR 72120; 4Tennessee Aquarium Conservation Institute, Chattanooga, TN 37402; 5Health and Natural Sciences, South Arkansas Community College, El Dorado, AR 71730; and 6Department of Natural Sciences, Peru State College, Peru, NE 68421.

2:00 DISTRIBUTION, HABITAT, AND STATUS OF THE DITCH FENCING CRAYFISH, FAXONELLA CYPEATA (HAY) (DECAPODA: CAMBARIDAE) IN ARKANSAS.
H.W. Robison1 and C.T. McAllister2. 9717 Wild Mountain Drive, Sherwood, AR 72120; and 1Science and Mathematics Division, Eastern Oklahoma State College, Idabel, OK 74745.

2:15 PREVALENCE OF CYTAUXZOO FELIS IN FERAL CATS IN RUSSELLVILLE ARKANSAS
Cynthia H. Jacobs, Rachael E. Urbanek, and Catherine Normand. Arkansas Tech University

ORAL SESSIONS II: FRIDAY 3:00-5:00

PHYSICS AND ENGINEERING
CHAIR: Charles Wu

3:00 DYNAMIC EFFECT OF TORNADO FORCES ON CYLINDRICAL STRUCTURES
Majdi Yousef, R. Panneer Selvam, and Piotr Gorecki. University of Arkansas, Fayetteville

3:15 SPEED AND CURRENT RELATION IN ANTI-FORCE BREAKDOWN WAVES
Ryan Evans, and Mostafa Hemmati. Arkansas Tech University

3:30 WAVE PROFILE FOR LOW SPEED CURRENT BEARING WAVES
Preston Gallia, and Mostafa Hemmati. Arkansas Tech University

3:45 PHOTOVOLTAIC MATERIALS RESEARCH AT ARKANSAS STATE UNIVERSITY—AN UPDATE

4:00 GROWTH OF ZnO NANOROD AND NANOFLOWERP STRUCTURES BY A FACILE TREATMENT OF Zn FILMS IN HOT DE-IONIZED WATER
Khedir R Khedir, Zubayda S Safaldeen, Taha Demirkan, Rosure B. Abdulrahman, and Tansel Karabacak. Department of Applied Science University of Arkansas at Little Rock

4:15 SPUTTER DEPOSITED TUNGSTEN CARBIDE (WC) NANORODS FOR WEAR RESISTANT APPLICATIONS
Mehmet F. Cansizoglu, Rahman, and Tansel Karabacak. Department of Applied Science, University of Arkansas at Little Rock

4:30 EFFICIENCY MEASUREMENT OF WHITE LED DEVICE
Ahmed Zurfi, Dallas Tompkins, and Jing Zhang. Department of Systems Engineering, University of Arkansas at Little Rock

4:45 A COMPARISON OF THE DIFFERENT INDEPENDENT TECHNIQUES FOR MEASURING SUPERMASSIVE BLACK HOLE MASSES
Ismael Al-Baidhany1, Marc Seigar1, Patrick Treuthardt1, Amber Sierra2, Ben Davis3, Daniel Kneifric3, Julia Kneifric3, and Claud Lacy3. 1University of Arkansas at Little Rock. 2University of Arkansas-Pine Bluff.

CHEMISTRY & BIOCHEMISTRY
CHAIR: Kevin Stewart

3:00 AN OPTICAL NANOSAT DETECTION AND RANGING SYSTEM (SADARS)
Mauriza Orona, Andrew Couch, and Edmond Wilson. Harding University
3:15
APPARATUS FOR CONCENTRATING PLANT AND HUMAN VOLATILES
Maegen Sloan, Brittany Gibson, Ozioma Whittaker, and Edmond Wilson. Harding University

3:30
DESIGNS FOR A RAMAN SPECTROMETER
Maria Medrano, Trevor Drury, and Edmond Wilson. Harding University

3:45
DESIGNING A SAMPLE HOLDER AND OPTICS FOR USE IN RAMAN SPECTROSCOPY
Trevor Drury, Maria Medrano, and Edmond Wilson. Harding University

4:00
OPTIMIZATION OF FUEL GRAIN GEOMETRIES FOR HYBRID ROCKETS USING AN ADDITIVE MANUFACTURING PROCESS
Rachel Beeman, and Edmond Wilson. Harding University

4:15
EXAMINING THE CLAIMS OF NATURAL PRODUCTS: AN EVALUATION OF THE ANTIMICROBIAL AND ANTIOXIDANT PROPERTIES OF AUSTRALIAN TEA TREE OIL
Chelsea Essay, and Dennis Province. Harding University

4:30
SPECTROSCOPY OF COMBUSTION OF HYDROCARBONS FROM 200 NM TO 1650 NM
Maddison Greene, and Edmond Wilson. Harding University

4:45
THE CRYSTAL STRUCTURE EFFECT OF THE SYNTHESIS OF COBALT OXIDE NANO PARTICLES USING MULTIPLE ITERATIONS OF A RECYCLABLE PRECIPITATION REACTION
J.S. Pennington, and R. J. Tackett. Arkansas Tech University

3:00
PROTECTIVE EFFECTS OF AQUEOUS EXTRACT OF TERMINALIA ARJUNA BARK AGAINST DOXORUBICIN-INDUCED CARDIOTOXICITY
Sarah Bishop1,2, Anja Bresciani3, and Shi Liu1.1 Ouachita Baptist University, Dept. of Pharmaceutical Sciences, College of Pharmacy, 2University of Arkansas for Medical Sciences, 3Department of Coastal Sciences, Gulf Coast Research Laboratory, University of Southern Mississippi

3:15
ASSESSMENT OF TOTAL PHENOLICS AND ANTI-OXIDATION CAPACITIES IN WHEAT SEEDS
Michelle Poe1, Andra Bates1, Luther Talbert2, Jamie Sherman2, and Joseph Onyilagha1. 1University of Arkansas at Pine Bluff, 2Montana State University

3:30
INTRAVESICAL CHITOSAN/IL-12 IMMUNOTHERAPY INDUCES TUMOR-SPECIFIC SYSTEMIC IMMUNITY AGAINST BLADDER CANCER
Sean Smith, and David Zaharoff. University of Arkansas

3:45
FRESHMAN FIND PHAGE!
Jessica Ashcraft, Ruth Plymale, and Nathan Reyna. Ouachita Baptist University

4:00
AGING IS A DETERMINANT IN ANOXIA STRESS TOLERANCE IN CAENORHABDITIS ELEGANS
J. M. Goy, Harding University

4:30
INBRE Opportunities

VERTEBRATE BIOLOGY
CHAIR: Cynthia Jacobs

3:00
A TEST OF ALTERNATIVE MODELS FOR INCREASED TISSUE NITROGEN ISOTOPE RATIOS DURING FASTING IN HIBERNATING ARCTIC GROUND SQUIRRELS
Trixie Lee1, C. Loren Buck1, and Brian M. Barnes2. 1Harding University, 2University of Alaska Anchorage

3:15
USING eDNA FROM SOIL SAMPLES TO DETECT TERRESTRIAL SPECIES
Subir B. Shakya, Pablo A. Bacon, and Abraham E. Tucker. Southern Arkansas University

3:30
ECOLOGY OF THE SQUIRREL TREEFROG (HYLA SQUIRELLA) IN SOUTHERN ARKANSAS
M. B. Connor1,2, T. Fulmer2, C. T. McAllister2, and C. R. Bursey1. 1Department of Biology, University of Arkansas, 2Division of Science and Mathematics, Eastern Oklahoma State College, Idabel, OK 74745

3:45
PLEISTOCENE SEED DISPERSAL OF ANACHRONISTIC FRUITS: USING ELEPHANTS TO TEST ANCIENT PLANT-ANIMAL INTERACTIONS
Charlie N. Davis, Madison J. Boone, and Laura Klasek. Hendrix College

4:00
LAND USE CHANGES IN THE FAYETTEVILLE SHALE GAS DEVELOPMENT REGION
Alex B. Cox, Rachel L. Wells, and Chloe Benichou. Hendrix College

4:15
GROWTH AND REPRODUCTION IN THE OUACHITA MADTOM (NOTURUS LACHNERI) AT THE PERIPHERY OF ITS DISTRIBUTION
Renn Tumlison, and James O. Hardage III. Henderson State University

INVERTEBRATE BIOLOGY
CHAIR: Joseph Goy

3:00
PLAGIOPORUS (DIGENEA: OPECOELIDAE) OF ARKANSAS AND MISSOURI
Thomas J. Fayton1, Chris T. McAllister2, and Matthew B. Conner3. 1Department of Coastal Sciences, Gulf Coast Research Laboratory, University of Southern Mississippi, 2Division of Science and Mathematics, Eastern Oklahoma State College, 3Health and Natural Sciences, South Arkansas Community College

3:15
PROPORTIONALITY OF POPULATION PARAMETERS OF CLINOSTOMUM METACERCARIE IN THE OROBRANCHIAL CAVITY OF MICROPTERUS DOLOMIEUI AND M. PUNCTATUS
James J. Daly, Sr. University of Arkansas for Medical Sciences (retired)

3:30
A COMPARATIVE STUDY OF HELMINTH PARASITES OF THE MANY-RIBBED SALAMANDER, EURYCEA MULTIPLICATA AND OKLAHOMA SALAMANDER, EURYCEA TYNERENSIS (CAUDATA: PLETHODONTIDAE), FROM ARKANSAS AND OKLAHOMA
1Division of Science and Mathematics, Eastern Oklahoma State College, OK 74445, 2Health and Natural Sciences, South Arkansas Community College, El Dorado, AR 71730, 3Department of Biology, Pennsylvania State University, Shenango Campus, Sharon, PA 16146
9717 Wild Mountain Drive, Sherwood, AR 72120

3:45
NOTES ON TARANTULA (APHONEPHELMA HENTZII) REPRODUCTION IN ARKANSAS
Austin Jones1, David H. Jamieson2, and Terry L. Jamieson2.
1NorthWest Arkansas Community College, 2Crowder College – Cassville Campus

4:00
FIRST RECORD OF THE AMERICAN BURYING BEETLE, Nicrophorus americanus, in Clark County, Arkansas
Jess Kelly, Ouachita Baptist University

4:15
POPULATION GENOMICS OF THE MICROCRUSTACEAN Daphnia Pulex
Abraham Tucker, Ph.D.1, L. Clai Morehead2, and Matthew Ackerman2.
1Southern Arkansas University, 2Indiana University

8:30
THE DEVELOPMENT OF CRITICAL TECHNOLOGIES FOR NANO-SATELLITE PROXIMITY OPERATIONS AT ARKANSAS
Adam Huang1, Edmond Wilson2, and Yupo Chan1.
1University of Arkansas, Fayetteville, 2University of Arkansas, Little Rock

8:45
BRINGING THE LEAST ACTION PRINCIPLE INTO INTRODUCTORY PHYSICS LABS
Juan D. Serna, and Jared Gavin. University of Arkansas at Monticello

9:00
SOFTWARE & HARDWARE DESIGN FOR A HIGH RESOLUTION FIBER-FED VISIBLE/NEAR INFRARED SPECTROGRAPH
Anna Shafer, Joshua Griffith, Brennan Thomason, and Edmond Wilson.
Harding University

9:15
MARS ROVER 3-D CAMERA
Aaron Burns, and Edmond Wilson. Harding University

9:30
REMOTE CONTROL OF MOBILE ROBOTIC VEHICLE VIA WEB-INTERFACE
Douglas Bailey, Justin Nesselrotte, and Edmond Wilson.
Harding University

8:45
SHALE GAS DEVELOPMENT AND ITS ASSOCIATED IMPACTS ON ENERGY PATTERN IN THE UNITED STATES
Qiaozi Zhao, and Charles Wu. Harding University

9:00
OPTIMAL EXPERIMENTAL DESIGN IN INVERSION WITH APPLICATION TO SUBSURFACE SENSING
Yijun Yu1, and Naiulong Guo1. 1Philander Smith College, 2Benedict College

9:15
DESIGNING A HIGH RESOLUTION FIBER-FED SPECTROGRAPH FOR SOLAR OBSERVATIONS
Edmond Wilson, Brennan Thomason, Stephanie Inabnet, and Tamara Reed. Harding University

PLANT SCIENCE
CHAIR: Ann Willyard

8:30
REDISCOVERY OF PERSEA BORBONIA VAR. BORBONIA (LAURACEAE), PROSOPIS GLANDULOSA VAR. GLANDULOSA (FABACEAE), AND PINUS PALUSTRIS (PINACEAE) IN ARKANSAS, WITH THREE NEW ANGIOSPERM SPECIES FOR ARKANSAS
Tiffany Roeser1, James H. Peck2, and Brett E. Serviss1.
1Henderson State University, 2University of Arkansas at Little Rock

8:45
THE STATUS OF CARDAMINE DISSECTA (BRASSICACEAE) IN ARKANSAS
Karen P. Fawley1, C. Theo Witsell1, and Marvin W. Fawley1.
1University of Arkansas at Monticello, 2Arkansas Natural Heritage Commission

9:00
THE PRESENCE OF ASIATIC SPECIES OF SEAWEED ON THE TEXAS COAST
Randi Lovell, Megan Reed, and Troy L. Bray. Henderson State University

9:15
SERENDIPITOUS DATA FOLLOWING A SEVERE WINDSTORM IN AN OLD-GROWTH PINE STAND
Don C. Bragg1, and Jess Riddle1.
1USDA Forest Service, 2University of Arkansas

9:30
ALGAE AND SNAILS INTERACT TO AFFECT LEAF DECOMPOSITION RATES
Ali McLeod, Steven Polaskey, and Sally Entrekin.
University of Central Arkansas

POSTER PRESENTATION
(Presenter is underlined)

LIFE SCIENCES POSTERS

LS 38 EASTERN BLUEBIRD DIET, BEHAVIOR, AND WATER CONTENT OF PREY ITEMS
Brandi Cansler, and Virginie Rolland.
Arkansas State University Department of Biological Sciences
LS 39 THE INTRODUCED DIRT-COLORED SEED BUG, MEGALONOTUS SABULICOLA (HEMIPTERA: RHYPAROCROMIDAE) AND WATER BOATMEN, SIGARA MATHESONI (HEMIPTERA: CORIXIDAE): NEW FOR ARKANSAS.
1Center for Life Sciences Education, The Ohio State University, 260 Jennings Hall, 1735 Neil Avenue, Columbus, OH 43210; 2Science and Mathematics Division, Eastern Oklahoma State College, Idabel, OK 74745; and 39717 Wild Mountain Drive, Sherwood, AR 72120.

LS 40 DETERMINING THE EFFECT OF ACTIN DEPOLYMERIZATION OF DICTYOSTELIUM DISCOIDEUM MITOCHONDRIA
Jordyn Cleavenger, Greg Berbusse, and Kari Naylor.
University of Central Arkansas

LS 41 NEW RECORDS OF ECTOPARASITES AND OTHER EPIDEMIOLOGIC ARTHROPODS FROM SCALOPUS AQUATICUS AND BLARINA CAROLINENSIS IN ARKANSAS
1Health and Natural Sciences, South Arkansas Community College, El Dorado, AR 71730; 2Department of Biology, Georgia Southern University, Statesboro, GA 30458; 3Science and Mathematics Division, Eastern Oklahoma State College, Idabel, OK 74745.

LS 42 NATURAL HISTORY NOTES AND RECORDS OF VERTEBRATES FROM ARKANSAS
1Health and Natural Sciences, South Arkansas Community College, El Dorado, AR 71730; 2Department of Biology, Henderson State University, Arkadelphia, AR 71999; 39717 Wild Mountain Drive, Sherwood, AR 72120; 4Division of Science and Mathematics, Eastern Oklahoma State College, Idabel, OK 74745; 5Tennessee Aquarium, Chattanooga, TN

LS 43 FIRST RECORD OF RIBBON WORMS (NEMERTEA: TETRASTEMMATIDAE: PROSTOMA) FROM ARKANSAS.
1Department of Biology, University of North Alabama, Florence, AL 35632; 29717 Wild Mountain Drive, Sherwood, AR 72120; and 3Science and Mathematics Division, Eastern Oklahoma State College, Idabel, OK 74745.

LS 44 SARCOPHAGEOUS INSECT ASSOCIATIONS AND SUCCESSION ON PIG CARRION DURING THE SUMMER IN CENTRAL ARKANSAS
Tyler Files, Brianne Baley, and Jess Kelly. Ouachita Baptist University

LS 45 PREVALENCE OF SHIGA TOXIN-PRODUCING ESCHERICHIA COLI
David F. Gilmore1, Hameet Kaur2, Monica Yarbrough3, and Donald Kennedy1.
1Biological Sciences, 2Environmental Sciences Program, 3College of Agriculture, Arkansas State University

LS 46 SAMPLING LOCAL FUNGAL DIVERSITY: A METHOD FOR FUNGAL SPECIES IDENTIFICATION USING DNA BARCING
Hendrix University

LS 47 DETERMINATION OF URSOLIC ACID AND BIOACTIVITY IN ILEX DECIDUA
Cynthia Holland, and Martin Campbell. Henderson State University

LS 48 NEW HOST AND LOCATION RECORDS FOR THE BAT BUG CIMEX ADJUNCTUS BARBER 1939, WITH A SUMMARY OF PREVIOUS RECORDS
John Hunt1, Matthew E. Grilliot2, and Christopher G. Sims1.
1University of Arkansas at Monticello, 2Troy University Montgomery

LS 49 LOCALIZATION STUDY OF BETA-HEXOSAMINIDASE IN THE SOCIAL AMOEBA DICTYOSTELIUM DISCOIDEUM
Sanja Talib Jawed, Azure Yarbrough, and John Bush.
University of Arkansas at Little Rock

LS 50 THE SUGAR AND AMINO ACID CONCENTRATIONS OF EXTRAFLORAL NECTAR IN FIVE COTTON CULTIVARS
Soolaf A. Kathir, Janet Lanza, and Anindya Ghosh.
University of Arkansas at Little Rock

LS 51 NEW HOST RECORDS FOR MESOCESTOIDES SP. TETRATHYRIDIA (CESTOIDEA: CYCLOPHYLLIDEA) IN AMPHIBIANS (ANURA: BUFONIDAE, RANIDAE) FROM ARKANSAS.
C.T. McAllister1, M.B. Connior2, and S.E. Trauth3. 1Science and Mathematics Division, Eastern Oklahoma State College, Idabel, OK 74745; 2Health and Natural Sciences, South Arkansas Community College, El Dorado, AR 71730; and 3Department of Biological Sciences, Arkansas State University, State University, AR 72467.

LS 52 HAEMOGREGARINA SP. (APICOMPLEXA: HAEMOGREGARINIDAE), TELORCHIS ATTENUATA (DIGENEA: TELORCHIDIIDAE) AND NEOECHINORHynchUS EMYDIS (ACANTHOCEPHA: NEOECHINORHynchIDAE) FROM MAP TURTLES (GRAPTEMYS SPP.), IN NORTHCENTRAL ARKANSAS.
1Science and Mathematics Division, Eastern Oklahoma State College, Idabel, OK 74745; 2Department of Biology, Pennsylvania State University, Shenango Campus, Sharon, PA 16146; 39717 Wild Mountain Drive, Sherwood, AR 72120; 4Health and Natural Sciences, South Arkansas Community College, El Dorado, AR 71730; and 5Department of Natural Sciences, Peru State College, Peru, NE 68421.

LS 53 THE KILLING MECHANISMS OF NOVEL ANTIFUNGAL PEPTIDES
Gabriela Morris, David McNabb, and Yazan Akkam.
University of Arkansas

LS 54 EFFECTS OF MICROGRAVITY AND RADIATION ON ELASTIC MODULUS OF RAT FemURS USING 3-POINT BENDING
O. Perkins1, A. Walker2, R. Mehta3, M. Dobretsov2, and P. Chowdhury1.
1Department of Physics and Astronomy, University of Central Arkansas, 2Department of Anesthesiology, University of Arkansas for Medical Sciences, 3Department of Biophysics and Physiology, University of Arkansas for Medical Sciences

LS 55 TOAD (ANURA: BUFONIDAE) LIMB ABNORMALITIES FROM AN AQUATIC SITE IN SCOTT, PULASKI COUNTY, ARKANSAS
Christopher S. Thigpen, Dan Beard, and Stanley E. Trauth.
Arkansas State University

LS 56 SELECTION OF FATTY ACID DESATURASE 7 ( fad7-1) SINGLE MUTANT PLANTS IN ARABIDOPSIS THALIANA USING SNP-PCR PRIMER
Kaleb L. Vaughn1, Carlos A. Avila2, and Fiona Goggin3.
1Harding University, 2University of Arkansas

LS 57 MOLECULAR CLONING TO IMPROVE MITOCHONdRIAL FISSION AND FUSION ASSAYS
Olivia Vogel, Kalyn Holloway, and Kari Naylor.
University of Central Arkansas

Journal of the Arkansas Academy of Science, Vol. 68, 2014

http://scholarworks.uark.edu/jaas/vol68/iss1/5
CHEMISTRY & BIOCHEMISTRY POSTERS

CBC 15 EXPLORING COORDINATION CHEMISTRY OF TRIS(PYRAZOL-1-YL)METHANE
Morgan Coleman1, and Ganna Lyubartseva. Southern Arkansas University

CBC 16 CRITICAL DISSOLVED OXYGEN LEVELS IN TRIBUTARIES OF THE BUFFALO NATIONAL RIVER
John Kincade1, Faron Usrey2, and Sherri Townsend3. 1North Arkansas College, 2National Park Service

CBC 17 ISOTHERMAL TITRATION CALORIMETRY FOR QUANTIFYING LACTOPEROXIDASE ACTIVITY IN MILK
William Tolleson1, and Clifton Lewis, Jr.2. 1National Center for Toxicological Research, 2Watson Chapel School District

CBC 18 IRON-CARBON RELATIONSHIP BETWEEN BOND LENGTH AND BOND VALENCE
Larkin McDaniel, and Franklin D. Hardcastle. Arkansas Tech University

CBC 19 NEUTRALIZATION AND pH EFFECT OF MILK ON ASPIRIN SOLUTIONS
Jordan Miller, Nikisha West, Fontaine Taylor, and Insu ‘Frank’ Hahn. Department of Chemistry, Division of Natural and Physical Sciences, Philander Smith College, Little Rock, AR

CBC 20 WATER QUALITY STUDY AT LAKE COLUMBIA, AR
Kara O’Neal1, and Casey O’Hara

CBC 21 EFFECTS OF MICROGRAVITY AND RADIATION ON ELASTIC MODULUS OF RAT FEMURS USING 3-POINT BENDING
O. Perkins1, A. Walker2, R. Mehta1, M. Dobretsov2, and P. Chowdhury1. 1University of Central Arkansas, 2University of Arkansas for Medical Sciences

CBC 22 MOLECULAR MODELING STUDIES OF PHYLOGENETICALLY SIGNIFICANT CAROTENOIDS OF OXYGENIC PHOTOTROPHS
Ryan Reyes, and M. Jeffery Taylor. University of Arkansas-Monticello

CBC 23 SPICES: TESTING THEIR ANTIMICROBIAL PROPERTIES AND SYNERGISM WITH PENICILLIN ON ESCHERICHIA COLI
Gregory Tyler Rives. Southern Arkansas University

CBC 24 SUPERAMPHIPHOBIC ALUMINUM ALLOY SURFACES
Zubayda S Safai'dee, Khedir R Khedir, and Tansel Karabacak. Department of Applied Science, UALR

CBC 25 BIOCHEMISTRY OF CHROMIUM
Shelby Sorrells, Silas Brown, and Edmond Wilson. Harding University

CBC 26 MEASURING PAIN WITHDRAWAL THRESHOLD USING A NOVEL DEVICE OPERATING IN "PSEUDO-CONTINUOUS" MODE
Azida Walker1, Nick Martinez1, Skipper Thurman1, Shelby Burns1, and Maxim Dobretsov1. 1University of Central Arkansas, 2University of Arkansas for Medical Sciences

PHYSICS AND ENGINEERING POSTERS

Ismael Al-Baidhany1, Marc Seigar1, Patrick Treuthardt1, Amber Sierra1, Ben Davis2, Daniel Kenn fic2, Julia Kennefick2, and Claud Lacy2. 1University of Arkansas at Little Rock, 2University of Arkansas at Fayetteville

P&E 23 A STUDY OF THE DISCREPANCY BETWEEN DYNAMICAL MASSES AND STELLAR MASSES IN SPIRAL GALAXIES
Ismael Al-Baidhany1, Marc Seigar1, Patrick Treuthardt1, Amber Sierra1, Ben Davis2, Daniel Kenn fic2, Julia Kennefick2, and Claud Lacy2. 1University of Arkansas at Little Rock, 2University of Arkansas at Fayetteville

P&E 24 STRUCTURAL AND OPTICAL PROPERTIES OF ALUMINUM NANORODS FABRICATED BY GLANCING ANGLE DEPOSITION (GLAD)
Rosure B. Abdulrahman, Mehmet F. Cansizoglu, and Tansel Karabacak. University of Arkansas at Little Rock

P&E 25 SYNCHRONIZATION LIMITS OF CHAOTIC CIRCUITS
Christopher M. Church, and Stephen R. Addison. University of Central Arkansas

P&E 27 SUPERHET CONVERTER FOR VLF 60kHz WWVB RADIO SIGNAL
Kody Coleman, Juan D. Serna. University of Arkansas at Monticello

P&E 28 A FRAMEWORK FOR MODELING USABILITY OF TEXT-BASED CAPTCHA
Jasmine DeHart, Jalen Mayfield, and Saur Swaid. Philander Smith College

P&E 29 STABLE FUZZY LOGIC CONTROL FOR NONLINEAR SIMPLE CHAOTIC MAPS
Christopher Gillison, and Juan D. Serna. University of Arkansas at Monticello

P&E 30 GEOMETRICAL VALIDATION OF LINEAR AND NONLINEAR DIOPHANTINE EQUATIONS
Kyra Jerry, and Juan D. Serna. University of Arkansas at Monticello

P&E 31 INVESTIGATION AND COMPARISON OF TWO BASIC AUDIO AMPLIFIER CIRCUITS
Michael Kelley, and Dr. Charles Wu. Harding University

P&E 32 TOTAL EXCITATION SCATTERING CROSS SECTION FOR POSITRONS SCATTERED BY MOLECULAR NITROGEN IN THE ENERGY RANGE (3 – 10 keV)
H.L. Mansour1 and W.A. Jabbar. 1Al – Mustansiriyah University, 2University of Arkansas at Little Rock
P&E 33 DETERMINATION OF THE TOTAL EXCITATION SCATTERING CROSS SECTIONS OF MOLECULAR NITROGEN FOR POSITRONS AT ENERGIES UP TO (10 keV)
H.L. Mansour¹ and W.A. Jabbar². ¹Al-Mustansiriya University, ²University of Arkansas at Little Rock

P&E 34 FABRICATION OF CDS NANORODS AND NANOPARTICLES WITH PANI FOR DYE-SENSITIZED SOLAR CELLS
Mutaz Zamil Mohammed, and Tar-Pin Chen. University of Arkansas at Little Rock

P&E 35 APPLYING PROBABILITY MATCHING AND POST RESOLUTION CHERICAL REVIEW TECHNIQUES TO IMPROVE ENTITY RESOLUTION RESULTS
Daniel Pullen, Pei Wang, and John Talburt. University of Arkansas at Little Rock

P&E 36 GAMMA GAMMA COINCIDENCE
Lucus Ratz, Doug Roisen, Jeremy Jacobs, Tanner Feeler, Azida Walker, and Rahul Mehta. Department of Physics and Astronomy, University of Central Arkansas

P&E 37 X-RAY FLUORESCENCE AND MOSELEY’S LAWS OF NUCLEAR RADIATION SPECTRA

P&E 38 CLASSIFICATION OF PARALLEL VORTEX-BODY INTERACTION
Matthew Strasser, and R. Panneer Selvam. University of Arkansas

P&E 39 NANOSAT SPECTROMETER
Edmond Wilson, Mauris Orona, and Andrew Couch. Harding University

P&E 40 ENERGY LOSS OF ALPHA PARTICLES IN COPPER FOILS
Xavier Redmon, Gerard Munyazikwiye, Ashley Cotnam, Azida Walker, and Rahul Mehta. University of Central Arkansas