

WestConn Research Day

May 14, 2009

Program

Seminar Presentations Luncheon Warner Hall	12:00 p.m. – 2:00 p.m.
Registration and Poster Setup Science Building Atrium	1:00 p.m. – 2:00 p.m.
Opening Session and Keynote Speaker Science Building (SB 125)	2:30 p.m 3:00 p.m.
Poster Session Science Building Atrium	3:00 p.m 5:00 p.m.
Concluding remarks and awarding of prizes Science Building (SB 125)	5:00 p.m 5:15 p.m.

Refreshments will be served during the conference in the Atrium of the Science Building

KEYNOTE ADDRESS

Title: Your life as an experiment: the challenges and rewards of a professional career **Abstract**

A successful career inevitably rests on a solid foundation of knowledge. To attain this you must capitalize on the many opportunities that you are presented with, both in your classrooms and laboratories, as well as professional settings.

The key is to always stay focused on your goal(s). They may change along the way, but you must be ready to seize the opportunities when they arise.

"Chance favors the prepared mind." Louis Pasteur

Be ready!

Biography

Ana Ribeiro is a post-doctoral fellow in the laboratory of neurobiology and behavior at The Rockefeller University. Her work is focused on two broad areas: the mechanisms by which estrogens modulate behavioral arousal and vigilance control, and the neuroanatomical and neurochemical substrates that mediate changes in behavior in response to fluctuations in resource availability. Both of these research topics have great public health relevance and are funded by the National Heart Lung and Blood Institute.



Ana received her undergraduate degree in Biology from Western Connecticut State University in 1995. She did her senior thesis work with Dr. Frank Dye, developing bioassays to evaluate water quality at various sites along the Housatonic River. Ana earned her Ph.D. from Fordham University in Cell and Molecular Biology.

Ana has presented her work at over 20 national and international conferences, beginning in 1995 at the National Conference for Undergraduate Research; and has published numerous research articles, invited reviews, book and encyclopedia chapters. Ana has been the recipient of many grants and awards, including the Young Investigator Award from the American Sleep Disorders Association.

Ana lives with her husband and their 2 year old daughter in Westchester County, NY.

Student Participants Undergraduate Students

Abstract

Name(s)

Session

Seminar

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18	John Lee
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30	Daniel Prall
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32	David Rogers
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34	Ornella Sathoud
35	Steven Schmidt
36	Jessica Thibeault
37	Thomas Trocola
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Poster Poster Seminar Poster Poster Poster Poster Poster Poster Poster Poster Poster Seminar Poster Poster Poster Poster Poster Poster Poster Poster Poster Seminar Poster Poster Poster Poster Poster Seminar Seminar Poster Poster

Poster

Student Participants Graduate Students

Abstract

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Name(s)

- 1 Patricia Anekwe
- 4 Katie Ayotte
- 14 Tina Herrera
- 16 Ryan Krompinger

Session

Poster Poster Poster Poster

Faculty Participants

Research Sponsors

Faculty

Department

Dr. Katherine Allocco Dr. Richard Bassett Dr. James Boyle Dr. Kristen Bundesen Dr John Coleman Dr. Karen Daley Dr. Frank Dye Dr. Gancho Ganchev Dr. Ruth Gyure Dr. Leslie Lindenauer Dr. Susan Maskel Dr. Yuan Mei-Ratliff Dr. Lydia Novozhilova Dr. Patricia O'Neill Dr. Albert Owino Dr. J Rosenthal Dr. Russ Selzer Dr Stacey Alba Skar Dr. Maureen Sperrazza Dr. Alex Standish Dr. Mitch Wagener Dr. Katy Wiss Dr. Edwin Wong

History Management Information Systems Physics, Astronomy and Meteorology History Management Nursing Biology **Computer Science** Biology History Biology Chemistry **Mathematics** Psychology Meteorology History Chemistry Spanish **Social Sciences** Social Sciences Biology Communication

Communic Biology

Abstracts

Poster Presentations

listed in alphabetical order by first author

1 PARENTAL INVOLVEMENTS: THE CASE OF PARENTS OF HIGH-ACHIEVING SECOND-GENERATION NIGERIAN YOUTHS IN THE U.S.

Patricia Anekwe - (Dr. Marcia Delcourt, Dept. of Education and Education Psychology)

There is a dearth of research on parental involvements among parents of high-achieving second-generation Nigerian youths in the United States. This study used data triangulation from youth surveys, in-depth interviews of Nigerian youths and parents (mothers) and a focus group interview to explore the nature of parental involvements in the academic experiences of high-achieving second-generation Nigerian youths in the United States. High-achieving second-generation Nigerian youths credited their parents, extended family, the Nigerian community, and their upbringing for their motivation and academic success. Nigerian parents were actively engaged with the education of their children, both in the traditional realms of school involvement and in the nontraditional school engagement.

3 EXPLORING JAVA SECURITY FEATURES

Stephanie Ardizzone - (Dr. Gancho Ganchev, Dept. of Computer Science)

As the world comes to rely more on network connections for data transfer and communication, more attention has been given to the field of computer security. By exploring the built-in capabilities of the Java programming language to protect and manage the permissions and protection over areas and functions of a system, we familiarized ourselves with some of the numerous features that this language has to offer. These features assist a programmer in effectively guarding the computer system from intrusions while allowing a permitted program to access sensitive areas of data as necessary to perform tasks. The evolution of the language can be illustrated with reference to specific security breaches that occurred and the resulting changes that were made.

4 TRANSITION OF NEW GRADUATE NURSES INTO THE WORKING REGISTERED NURSE ROLE IN THE ACUTE CARE SETTING

Katie Ayotte - (Dr. Karen Daley, Dept. of Nursing)

For this study the Halfer Graf Job/Work Nursing Satisfaction Survey was used to determine if nurses today are experiencing the same causes of reality shock in the healthcare environment today, as identified by Kramer in 1974. The results of this study were surprising, and strongly contradicted much of the literature today. While Kramer identified role conflict and work environment to be the greatest cause of shock in 1974, neither of these were causing significant stress to participants of this study. Participants did identify professional respect and working hours to be their greatest causes of reality shock new targets of stress since the time of Kramer.

5 PRINT MEDIA FRAMING EFFECTS ON CHILDHOOD OBESITY

Diane Burke - (Dr. Katy Wiss, Dept. of Communication)

A content analysis of 89 articles from five of the top 10 U.S. daily newspapers evaluated print media framing effects on childhood obesity. Based data results, six key framing attributes were found that included dramatization, individual (personal) reasons, personal causes and effects, societal causes and solutions, as well as psychological importance contributed through contradictory or confusing mediated content or messages. Research also revealed psychological importance was interrelated with dramatizing headlines and within the article content most often. This pattern also was attributed to the 119 source citations from scientific studies and by scientific/health experts.

7 PROBATION NATION: AN EVALUATION OF THE EFFICACY OF PROBATION SINCE ITS ESTABLISHMENT IN AMERICA.

Kimberly Carter - (Dr. Leslie Lindenauer, Dept. of History)

Probation is the most commonly used court ordered sanction in the United States. Since its establishment in America, in 1841, probation has not always been viewed as an effective sanction, as opponents consider(ed) it to be 'soft on crime'. However, after an exploration of the history of probation, including both past and present methods and procedures as well as government reports and statistical data, this paper proves otherwise. In recent years, an effort to deinstitutionalize the deviant American population, through probationary decrees has become a pivotal element in the American Criminal Justice System. As a result of probation's rapid expansion, particularly due to prison overcrowding, the system has evolved and dramatically reduced recidivism rates.

8 POLICING THE POOR: HUMAN RIGHTS AND POLICE BRUTALITY IN RIO DE JANEIRO, BRAZIL.

David DaCruz - (Dr. J Rosenthal, Dept of History)

Brazilian favelas have a very diverse population that has evolved along with the complex itself. Police have had many issues in trying to control gang violence both among gangs and with the police themselves. The gangs are keeping up with and are often a step ahead of the police officers themselves. The violence is almost at a point where it is uncontrollable. Police brutality is a result of the history of favelas themselves and is an on-going crisis throughout Rio de Janeiro and Brazil as a country. I will attempt to shed light on this important issue that is plaguing Brazil by providing a historical background, a peer into favela culture and life, a brief history of police violence in Brazil, and on how contemporary media in Brazil and around the world shape popular perception of this problem.

9 THE EFFECTS OF GENDER STEREOTYPES ON DECISION MAKING.

Sarah Decker - (Dr. Patty O'Neill, Dept. of Psychology)

Research suggests that women and men, emotionally, are more similar than different. This raises questions about the stereotypes that we hold about emotions. College students read a scenario describing an uncomfortable situation with an over emotional man or woman. Participants were rated on how comfortable they would be in the situation and also how comfortable they would be if the person in the scenario was of the opposite sex. Preliminary results show that primary gender comfort and gender comfort towards the opposite sex are statistically significant.

10 EFFECTS OF PRESSURE WHEN DETECTING CHANGE

Patricia Dolan - - (Dr. Patty O'Neill, Dept. of Psychology)

Research has shown people have a difficult time in detecting change in the visual world. To test the idea of change to blindness, 30 college students participated in a visual experiment comparing almost identical pictures. Randomly assigned to three different conditions, students had to identify the differences. Despite prior research findings, this particular experiment did not show statistical significance.

11 AN EXAMINATION OF THE HATTING INDUSTRY IN NEW MILFORD AND BRIDGEWATER

Christopher Fisher - (Dr. Maureen Sperrazza, Dept. of Social Sciences)

This research has examined the history of the hatting industry in New Milford and Bridgewater, CT. The industry in these towns represents general trends in industrial Connecticut and the ramifications of early industrialization. The following questions were investigated: (1) Why did the hatting industry die in New Milford? (2) Was the decline of this industry due to Connecticut's early success at industrialization? (3) Was this decline due to a poorly supported infrastructure or residential trends? (4) Should we view this decline as a sign of a fluid movement back to cities after an era of expansion? Answers to the questions will be presented.

12 MOOD AFFECTS ON FALSE RECALL

Christine E Gordineer - (Dr. Patricia O'Neill, Dept. of Psychology)

Past research has shown that individuals in a negative mood were less likely to falsely recall than individuals in a positive or neutral mood. To test this theory, 30 college students studied a word list, with a strongly associated critical lure (CL) not on the list. Individuals were randomly assigned to receive a simple math problem (control), or a negative or positive message designed to induce a mood before recalling the words from the studied list. Contrary to previous research, mood did not affect the rate of false recall of the CL.

13 RECAPTURING MEMORIES IN CHILE, ARGENTINA AND PERU

Prissilla Gutierrez - (Dr. Stacey Alba Skar, Dept. of Spanish)

This work confronts the differences presented from what is known as an official national history with what is remembered by that country's populace in Chile, Argentina and Peru. It explores how writers and filmmakers reconstruct visual and written personal stories to denounce human rights abuses in each national context during oppressive regimes in the late 20th century. The use of various forms of cultural production from these three countries gives the reader a range of insight and a variety of perspectives to rebuild a collective national identity by remembering the past from a variety of contradictory voices rather than a monolithic discourse.

14 A COMPREHENSIVE SCHOOL HEALTH PRORAM, THE MISSING LINK

Tina Herrera - (Dr. John Coleman, Dept. of Management)

This paper helps to educate school officials about the importance of having school health administrators coordinate school health programs across the nation. Healthcare administration is the missing link to a comprehensive school health program. Strategically, school health administration should work with local public health departments. Integration with national health provider networks and the provision of Health People Initiatives would be better implemented and monitored. School health administrators need formal education in medical and administrative backgrounds to understand certain laws and liability issues dictating standards of practice. Continuous Quality Improvement (QCI) in school health programs should be an integral part of public health practice.

15 THE EFFECT OF EXTRACELLULAR MATRICES ON RAT NEURAL STEM CELL DIFFERENTIATION

Maria Ierace - (Dr. Frank Dye, Dept. of Biology)

Neural stem cells are multipotent cells that have the ability to differentiate into neurons, oligodendrites, and astrocytes. In this study, the effects of different extracellular matrices (ECMs)-- laminin, collagen, fibronectin, and NAN and SAN inserts-- on neural stem cells were studied. Since laminin, collagen, and fibronectin are all proteins in the ECM, and the NAN and SAN inserts provide a synthetic ECM, it was expected that they would increase the number of neural stem cells. Rat neural stem cells were cultured in 6-well plates with the above mentioned inserts. The presence of astrocytes, oligodendrites, and neurons was then tested for using immunofluoresence.

16 REGIONAL CLIMATE CHANGE PROJECTIONS FOR THE NORTHEASTERN U.S. USING AN A2 IPCC EMISSIONS SCENARIO

Ryan Krompinger - (Dr. Albert Owino, Dept. of Meteorology)

The Northeast is a region of diverse landscape and climate. In order to project future climate scenarios, it is important that they are developed on a regional scale. Statistical downscaling methods were applied to the Hadley Centre Coupled Model (HadCM3) to produce high resolution, future scenarios of maximum and minimum temperature, and precipitation. Projections show average temperature increasing through the year 2100 by 6.80 F to 9.30 F, with larger increases at higher latitudes and inland. Downscaled precipitation produced results statistically similar to the raw HadCM3 global grid projections, indicating that the majority of precipitation is based on synoptic scale events.

17 SINGLE-WALL CARBON NANOTUBE AND PORPHYRIN PHOTOVOLATIC SYSTEM

Lenore Kubie - (Dr. Russ Selzer, Dept. of Chemistry)

Single-wall carbon nanotubes (SWNTs) associated with electron-donating species which are excited in the visible region, such as porphyrins, show promise in the future of photovoltaics. SWNTs have extended systems which facilitate electron flow, and therefore allow the SWNTs to act as wires to shuttle electrons away from the porphyrin center. In this research, SWNTs have been modified using polystyrene sulfonate to create a water-soluble species that also interacts with porphyrins to form the basis for a nano-scale solar cell.

19 EFFECTS OF VALENCED WORD PAIRS ON RECALL: DOES EMOTION HELP MEMORY?

Jane MacLaren - (Dr. Patricia O'Neill, Dept. of Psychology)

Research shows emotional or arousing stimuli can influence memory, but it is unclear whether positive and negative stimuli are remembered equally well. To further investigate the effects of emotion on recall, college students viewed emotionally valenced word pairs (negative, neutral or positive) and were asked to freely recall words after participating in an intervening task. Results partially support previous findings with a significant difference in recalling positively valenced stimuli, with no differences identified for recalling neutral or negatively valenced stimuli. Possible reasons for the varied results are discussed.

20 METHOD DEVELOPMENT FOR TETRACYCLINE ANALYSIS USING HIGH PRESSURE LIQUID CHROMATOGRAPHY

Steven McFarland - (Dr. Yuan Mei-Ratliff, Dept. of Chemistry)

Advocates of organic foodstuffs promote the lack of negative additives in organically produced foods. Antibiotics have been the focus of much negative advertising in this regard, reportedly responsible for a plethora of potential health problems among Americans. Contradicting reports are frequently found in scientific publications regarding the alleged prevalence of residual antibiotics in meats and dairy products. This project aims towards the development of an HPLC method for the analysis of residual tetracycline in commercial milk, both organic and otherwise from local stores. Calibration linearity has been established and work towards establishing an accurate and reproducible tetracycline extraction method will be presented.

21 DO MALES AND FEMALES PERCEIVE DIFFERENT IMAGES WITHIN AN AMBIGUOUS FIGURE?

Cailin McGaughan - (Dr. Patricia O'Neill, Dept of Dept. of Psychology)

Do males and females perceive ambiguous images differently? Are there gender differences in the perception of sexually oriented pictures? To find answers to these questions, twenty college students (10 males and 10 females) viewed a slideshow containing 16 ambiguous figures. An ambiguous figure is one in which there are two or more possible interpretations. Students were asked to write down what they saw in each figure. Preliminary results suggest that there are differences in how people interpreted the images.

22 THE EFFECTIVENESS OF ONLINE LEARNING COMPARED WITH CLASSROOM AND SELF-LEARNING

Jeanne Mello - (Dr. Patricia O'Neill, Dept. of Psychology)

Is earning an online degree as effective as earning a campus-based degree? In this experiment participants were subjected to one of three conditions: online learning, classroom learning, or self-learning. The online group viewed a slideshow and then took an online test. The classroom group was read the material by an instructor and a paper test was administered. In the self-learning condition the participants independently read the material and were given a paper test. The results showed significant difference between self-learning and the other two learning techniques. However there were no differences between the online and classroom groups.

23 ARE WE PREPROGRAMMED AT BIRTH? A STUDY OF THE POTENTIAL LINK BETWEEN BIRTH ORDER AND RISK TAKING BEHAVIORS.

Renee Merrell - (Dr. Patricia O'Neill, Dept. of Psychology)

Certain personality traits appear to be associated with birth order. Numerous studies dating back to the early 1900s have investigated the possibility of a link between birth order and its potential effect on intelligence, decision-making, motivation, success, and risk-taking. This study examined a potential correlation between birth order and risk taking behaviors. Preliminary results do not show a significant link between birth order and risk taking behavior.

24 COMPARISON OF REACTION TIME OF HAND AND FOOT RESPONSES TO AUDITORY AND VISUAL STIMULI

Betsy Meyer and Samar Syed - (Dr. Susan Maskel, Dept. of Biology)

Reaction time to auditory and visual stimuli using hand-held and foot regulated devices were compared. Student, faculty and staff volunteers responded to randomly and evenly spaced stimuli (clicks heard through earphones and green triangles appearing on a computer screen) using Biopac equipment. Data was analyzed by ANOVA. Results indicate that reaction time is faster with auditory than with visual stimuli; with fixed interval rather than randomly spaced stimuli; and with hand rather than with foot responses. These results support published studies which measured reaction time using other methodologies and may have implications in terms of daily tasks such as driving.

25 HOVERING AND ITS EFFECTS ON STUDENT TEST ANXIETY

Anna Marie Mitchell - (Dr. Patricia O'Neill, Dept. of Psychology)

Test anxiety may be increased by the increasing emphasis on grades and faculty efforts to curb cheating such as hovering over students. To test the effects of hovering, college students completed a mathematics exam followed by a Test Anxiety Inventory while someone hovered over them. No differences in anxiety levels were found between the hover and no hover conditions. Potential reasons for the lack of differences and future research implications are discussed.

26 MAPPING BEAR MOUNTAIN STATE PARK BY COMBINING GLOBAL POSITIONING SYSTEM (GPS) AND GEOGRAPHIC INFORMATION SYSTEM (GIS) TECHNOLOGY

Andrew Oguma and Hugh Delage - (Dr. Alex Standish, Dept. of Social Sciences)

An accurate map of the trails, meadows, and streams within Bear Mountain State Park was generated as a guide for visitors to the park. Garmin handheld field global positioning system (GPS) devices were used to collect geographic coordinates of the features in the park. Features were then converted into file types compatible with geographic information system (GIS) software termed feature classes. ArcGIS 9.2 software was then used to combine the feature classes with base map layers available from the Connecticut Department of Environmental Protection (DEP). Finally, ArcGIS was used to produce a finished map of the park and its features.

27 CAN NATIVE WEEVILS CONTROL EXOTIC MILFOIL?

Andy Oguma and Ellen Healey - (Dr. Mitch Wagener, Dept. of Biology)

The exotic aquatic plant, Eurasian watermilfoil is a nuisance, displacing native communities, inhibiting recreation, and lowering property values since its introduction into North America in the 1940s. The herbivorous, native milfoil weevil is a potential biological control because it prefers Eurasian milfoil. In June 2008, nine thousand weevil eggs were stocked at three sites in Candlewood Lake. Plants were sampled during summer 2008 and examined for weevils and plant damage. Significantly more weevils and signs of weevil damage to Eurasian milfoil were found in stocked sites than unstocked sites. There was no reduction of milfoil biomass in the stocked sites.

29 THE EFFECT OF RESVERATROL AND EXTRACELLULAR MATRICES ON FETAL MOUSE CARDIOMYOCYTES

Maria Peters and Velvet Ritch - (Dr. Frank Dye, Dept. of Biology)

Cardiomyocytes from 15 day-old mouse fetuses were isolated and cultured on various extracellular matrices. These inserts are engineered to provide cells with a three-dimensional growth surface to promote in vivo functionality and morphology. Resveratrol, a polyphenol found in red wine, was also tested on the cardiomyocytes. Resveratrol is produced in response to a fungal infection and enhanced through fermentation of the grape skins. Negative controls were observed in both experiments. The strength and rate of contraction were recorded by videomicrography. These results are important in order to determine the effects of resveratrol and its potential to prevent cardiovascular disease.

30 THE EFFECTS OF FRUSTRATION ON DRIVER'S TEST SCORES

Daniel Prall - (Dr. Patricia O'Neill, Dept. of Psychology)

This research focused on the effects of experimentally-induced frustration on sample driver's test scores. The participants were a convenience sample of 20 undergraduate college students from a public northeastern university. The study required participants to play a short game of Tetris followed by taking a self-report frustration survey, and a sample driver's test. An independent samples t-test was used to analyze the results. As a result, experimentally induced frustration does not seem to significantly deteriorate written driver's test scores.

31 THE ATPF-ATPH INTERGENIC SPACER AS A BARCODE REGION FOR PLANTS

Mayadha Rasheed - (Dr. Edwin Wong, Dept. of Biology)

DNA barcoding is a promising advancement in DNA fingerprinting. It has the capability to differentiate between species of plants and animals using only one or a few short DNA sequences. An animal barcode, the Cytochrome Oxidase subunit I (COI) gene, has already been identified, but finding a barcode sequence for plants has been a more difficult task. The intergenic region between ATPF and ATPH genes has yielded good results in a number of plant species, and was tested on the tomato, Solanum lycosperiscum, in this current study.

32 COMMUNIST AND SOCIALIST VALUES OF THE PAST

David Rogers - (Dr. Kristen Bundesen, Dept. of History)

Communism and socialism are ideologies that have influenced political thought nationally and globally for many generations; the labels of communism and socialism have only been represented in the past couple centuries. However, the ideas they propose are not as young as many people believe. Ancient civilizations such as Greece have implemented economic reform and commented on politics and ideal society long before Marx and socialist reform were codified. Middle-age economy and politics was fraught with socialist inferences and ideological references. The political experimentation and commentary of the past may grant our modern societies enlightening knowledge about political victory and failure.

33 HOW TELEVISION CAN INFLUENCE PEOPLE'S ATTITUDES TOWARD LAW ENFORCEMENT

Lauren Russo - (Dr. Katy Wiss, Dept. of Communications)

This research compares the rate of realism that people perceive police drama and reality-based programs have. Does this perception affect their attitudes toward law enforcement? Assuming a high rate of realism, would there be a correlation between people perceiving the police and the way the programs depict them? There is a relationship between watching police centered programs and finding them to be realistic. However, it can not conclusively be said that these programs affect how people feel about the police. Such programs would appear to have little impact on people's perceptions, even though they believe the depictions in these shows are accurate. Therefore, the impact of police drama and reality-based programs on the public perception of law enforcement is minimal. The explanation of these findings and their implications are discussed.

36 AN EFFECTIVE MODEL FOR TEACHING MICROBIOLOGY IN THE MIDDLE SCHOOL CLASSROOM: MICROBIAL GROWTH, FOOD PRESERVATION, AND THE MENTOR-ASSISTED DATA SET.

Jessica Thibeault - (Dr. Ruth Gyure, Dept. of Biology)

In this study we tested whether or not mentor-assisted data sets help middle school students understand and learn about the scientific method and process. Data collected at WCSU provided students with actual numbers from microbiology experiments testing their hypotheses about food preservation and spoilage things they could not test in their own classrooms. We used pre and post tests that asked open-ended questions about experimental process to assess learning gains. Results show that for targeted learning goals, students scored on average 20 percent better after the activity.

37 RECREATIONAL AND PROFESSIONAL USER DISCLOSURE OF INFORMATION THROUGH ONLINE SOCIAL NETWORKS

Thomas Trocola - (Dr. Katy Wiss, Dept. of Communications)

Online social network platforms such as MySpace have resulted in a new frontier of communication. The implications that online social networks bring forth are paramount to comprehend for user safety. Consequently, research showed that a vast amount of users choose to display high self-disclosure of private and potentially incriminating information. This analysis used MySpace as a platform to conduct a series of quantitative examinations. What is the relationship between age and reason for using social networking sites and privacy disclosures? Overall, groups did not have a clear distinction of self disclosure; alternatively, specific categories showed differentiation of disclosure unfurl.

38 POLAR EMOTIONAL STATES AND DECISION-MAKING

Angelique Vantry - (Dr. Patty O'Neil, Dept. of Psychology)

People make decisions at every moment in their lives; some are large that require forethought and some are small involving little or no conscious thought. This study investigated how an individual's emotional state influences their decision response time. To test this, college students were asked to complete either one or two emotional inventories, watch a PowerPoint (positive or negative, dependent upon condition) and complete a decision-making task in which reaction time was measured. The results showed that there was a significant difference between the negative group and the control group when the target matched the side of the key pressed.

Abstracts

Seminar Presentations

listed in alphabetical order by first author

2 IMPLEMENTING A MULTI-TIER ARCHITECTURE IN JAVA

Stephanie Ardizzone - (Dr. Gancho Ganchev, Dept. of Computer Science)

In software engineering, a multi-tier architecture is an architecture in which the different aspects of the program, as in the data management, user interface, and general processing, are treated as logically separate processes. Through experimentation with the Java language, we explored different topics of the Java distributed technology and developed such a piece of software in the form of a bank simulation. Fields studied included multithreading, networking, Java Database Connectivity (JDBC), Extensible Markup Language (XML), security, and remote method invocation capabilities as a part of this programming language.

6 VICTORIAN FASHION: A MIDDLECLASS MAKEOVER

Jamie Cantoni - (Dr. Katherine Allocco, Dept. of History)

The Victorian Era denotes the long and complex period Queen Victoria reigned over Britain, 1837-1901. It rapidly changed, developed, held many paradoxes and accomplished great expansion of wealth, power and culture. Victorian expansion can be understood through Victorian fashion, as clothing and technology were entwined. Victorian fashion occurred in three periods: Early 1830-1850, Middle 1850-1870 and Late 1870-1901. Within each period, two antagonistic themes emerge: England's expansion and technological innovation, and the concurrent opposition movement. This study focuses on the middleclass and its relation to rubber, aniline dyes, the crinoline cage, ready-made clothing and aestheticism in Victorian fashion.

18 MATHEMATICAL SIMULATION OF A MODEL IN NANOPHYSICS

John Lee - (Dr. Lydia Novozhilova, Dept. of Mathematics)

Mathematics continues to be a close and natural partner of physics in 21st century as it has been for a since ancient times. In particular, to understand properties of the matter at the nanometer scale, a large arsenal of mathematical models and techniques are used in nanophysics. We apply mathematical techniques of stability analysis and perform simulation for a model relevant to analysis of so-called spin valve, a nano-device used in information processing. Some applications will be briefly described. Our computational results will be presented in visual form accessible to UG students at junior-senior level.

28 SOFTWARE AS A SERVICE (SAAS)

Mayur Patel - (Dr. Richard Bassett, Dept. of Management Information Systems)

The internet has come a long way, so how does the online delivery of software sound? This will potentially eliminate having the physical installation of software and deal with costly End User License Agreements, and makes the software a variable costs rather than a fixed cost at the time of purchase. This will make CIO's very happy. The application that provides online software hosting is Software as a Service. Software as a Service is software that's developed and hosted by the SaaS vendor and which the end user customer accesses over the Internet.

34 ASSESSMENT OF USING AN ION EXCHANGE RESIN FOR CHROMIUM SPECIATION AT ULTRA-TRACE CONCENTRATION

Ornella Sathoud - (Dr. Yuan Mei-Ratliff, Dept. of Chemistry)

Chromium speciation is of interest because depending on the oxidation form it may be either harmful or beneficial to human health. Chromium (III), Cr3+, is an essential mineral in the human body, the deficiency of which results in diseases, whereas Chromium (VI), CrO42-, is carcinogenic. Reliable methods to separate and analyze each accurately are desired. The goal of this research is to find the optimum conditions of using the USF-7803 ion exchange resin for separating Cr(III) from Cr(VI), and then for subsequent detection at the ultra-trace level (parts per billion) using an Inductively-Coupled Plasma Atomic Emission Spectrometer.

35 CHARACTERIZING THE SURFACE WATER ENERGY BUDGET FOR WESTERN LONG ISLAND SOUND IN LATE JULY AND EARLY AUGUST 2004 & 2005

Steven Schmidt - (Dr. James Boyle, Dept. of Physics, Astronomy and Meteorology)

Hypoxia negatively influences water quality in western Long Island Sound (LIS) during summer months. A critical factor affecting its severity is the inhibition of atmospheric oxygen in warmer surface water's from penetrating into bottom waters. This is caused by large energy inputs through the surface combined with a reduction in wind-induced mixing. Presented will be an analysis of National Data Buoy Center and National Solar Radiation Database data showing a noticeable difference between the less severe hypoxic year of 2004 and the more severe 2005 in terms of air and water temperature, and the sensible and latent heat fluxes.

WestConn Research Day is co-sponsored by the Office of Academic Affairs, the Ancell School of Business, the School of Arts and Sciences, the School of Professional Studies, the School of Visual and Performing Arts, and the Graduate School.

Appreciation & thanks to the people who made this event possible:

Dr. James Schmotter, President Dr. Linda Rinker, Provost and Vice President of Academic Affairs Dr. Lynne Clark, Dean of the School of Professional Studies Dr. Ellen Durnin, Dean of the Graduate School Dr. Carol Hawkes, Dean of the School of Visual and Performing Arts Dr. Allen Morton, Dean of the Ancell School of Business Dr. Linda Vaden-Goad, Dean of the School of Arts and Sciences Office of Publications and Design Office of Public Relations

Judges for the Provost's Prize

Dr. Robin Flanagan, Psychology Department Dr. Josie Hamer, Mathematics Department Ms. Jenny Innez, Haas Library Dr. William Petkanas, Communication Department

WRD Volunteers

Ms. Michelle Dease, WestConn student Ms. Melissa Garafola, WestConn student Ms. Debbi Johnson, WestConn Adjunct Professor & University Assistant Other WestConn Students (names unknown at time of printing)

WRD 2009 Committee Members

Dr. Emilio Collar, Co-Chairman, MIS Department Dr. Susan Maskel, Co-Chairman, Biology Department Dr. Richard Bassett, MIS Department, Assistant Dean Dr. Karen Crouse, Nursing Department Dr. Sam Lightwood, Mathematics Department Ms. Marjorie Portnow, Art Department Dr. Catherine Rice, Nursing Department