CONFERENCE PROGRAM

8:00 a.m. to 8:30 a.m.	Registration	2110 Miller, 2nd floor Union
8:00 a.m. to 8:30 a.m.	Refreshments	2110 Miller, 2nd floor Union
8:25 a.m. to 8:35 a.m.	Welcome	2110 Miler, 2nd floor Union
8:45 a.m. to 9:15 a.m.	Presentations	3rd floor Union
9:20 a.m. to 9:50 a.m.	Presentations	3rd floor Union
9:50 a.m. to 10:15 a.m.	Refreshments	2110 Miller, 2nd floor Union
10:20 a.m. to 10:50 a.m.	Presentations	3rd floor Union
10:55 a.m. to 11:25 a.m.	Presentations	3rd floor Union
11:30 a.m. to 12:00 p.m.	Presentations	3rd floor Union

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UNIVERSITY *of* WISCONSIN LA CROSSE

23rd Annual Faculty Research Day

8:00 a.m. to 12:00 p.m.
January 19, 2018
The Student Union

Celebrate
*research at UWL and
share in the endeavors of colleagues
and their students*

Learn and Share
*about research, scholarly, and
creative activities at UWL*

Session I - Presentations: (8:45 – 9:15 a.m.)	Rm #

A. Molecular Rearrangements in N-Substituted Biphenyl Chromium Tricarbonyl — UNION 3110
Curtis Czerwinski (Chemistry & Biochemistry)

B. Julia Grace Wales and the Radical Nature of Thoughtful Dissent — UNION 3120
Deborah Buffton (History)

C. Regime Switching in Fiscal Debt Targets and Policy Functions in the United States — UNION 3130
James Murray (Economics)

D. Transposing *Jane Eyre*: Race, Inheritance, and Identity in Toni Morrison's *Tar Baby* — UNION 3310
Susan Crutchfield (English)

E. Covering the Arrival of Unaccompanied Latin@ Child Immigrants in United States English- and Spanish-language Print Media — UNION 3314
Megan Strom (Global Cultures & Languages)

Session II - Presentations: (9:20 – 9:50 a.m.)	Rm #

F. Using Low-Cost Sonar for Habitat Mapping in Belize's Barrier Reef — UNION 3110
Colin Belby (Geography & Earth Science)

G. Phantom Sources: Reconstructing Romantic Love in Weimar Popular Cinema — UNION 3120
Marti Lybeck (History)

H. Combining Analytics and Intuition Leads to Better Decisions — UNION 3130
Marco Vriens (Marketing)

I. Ethnicity, Institutions, and Female Legislative Representation — UNION 3310
Regina Goodnow (Political Science & Public Administration)

J. Comparison of Knowledge Representation Methodology — UNION 3314
Kyung Hoon (Brian) Yang (Information Systems)

Session III - Presentations: (10:20 – 10:50 a.m.)	Rm #

K. Honey Bee Communication: The Tale of a Sleep-deprived Dancer and Her Unwitting Followers — UNION 3110
Barrett Klein (Biology)
David Reineke (Mathematics & Statistics)*

L. Avocational Archaeology: Expanding the Archaeological Record — UNION 3120
Constance Arzigian (Archaeology & Anthropology)
Jean Dowiasch (Mississippi Valley Archaeology Center)

M. Recruiting New College Graduates: What Are Students Looking for? — UNION 3130
Gwen Achenreiner (Marketing)

N. Evidence for Contemporary Mercury Contamination from the 17th-19th Century North American Fur Trade — UNION 3310
Kris Rolfhus (Chemistry & Biochemistry)

O. What is Empathy? Making Distinctions that Matter — UNION 3314
Samuel Cocks (Philosophy)

Session IV - Presentations: (10:55 – 11:25 a.m.)	Rm #

P. Integrating Your Scholarship into a Course — UNION 3110
Scott Cooper (Biology)

Q. Urban Water Supply in Sub-Saharan Africa: Historical and Emerging Policies and Institutional Arrangements — UNION 3115
Daniel Sambu (Geography & Earth Science)

R. A "Fireable Offense"?: ESPN's Jemele Hill and the Rhetoric of Public Correction — UNION 3120
Kate Lavelle (Communication Studies)

S. The Opportunity Cost of Defense Expenditures: A Laboratory Experiment Using Warcraft — UNION 3130
Adam Hoffer (Economics)

T. From Archives to Stage: The Martindale Sisters Project — UNION 3310
Beth Cherne (Theatre Arts)
Teri Holford (Murphy Library)

U. Cybersecurity in an Academic Environment--How to Be Safe-Informed-Secure [SIS] — UNION 3314
James Jorstad (Information Technology Services)

Presentation Abstracts

A. Molecular Rearrangements in N-Substituted Biphenyl Chromium Tricarbonyl
Curtis Czerwinski (Chemistry & Biochemistry)

Biphenyl chromium tricarbonyl compounds can undergo rearrangements that may lead to their use as molecular switches. Certain structural features, such as the dihedral angle between the rings in these compounds, influence their rates of rearrangement. Systematic changes in the sizes and electronic properties of substituents on the rings have revealed notable trends that influence structure and reactivity of these compounds.

B. Julia Grace Wales and the Radical Nature of Thoughtful Dissent
Deborah Buffton (History)

Julia Grace Wales (1881-1957) was a graduate student at UW-Madison when World War I broke out in 1914. She wrote a 12-page pamphlet describing her plan to end the war. It caught the attention of prominent people both in the US and internationally and provided inspiration for Woodrow Wilson's 14 Points. Nonetheless, we know little about her. This presentation will bring to light the work of an important, but unfamiliar peace activist.

C. Regime Switching in Fiscal Debt Targets and Policy Functions in the United States
James Murray (Economics)

Forward-looking macroeconomic theory suggests the impact fiscal policy has on the macroeconomy depends on expectations for future fiscal policy behavior. The effects of fiscal policy therefore depend on long-run government debt targets, the degree to which various fiscal policy variables will respond to debt in order to balance the long-run government budget constraint, and the degree to which fiscal policy variables react to stabilize economic conditions. In this paper, I examine evidence for switching in fiscal policy behavior in the United States along these dimensions. I estimate fiscal policy behavior equations for government expenditures, taxes, transfers, and deficits, allowing each to have stabilizing responses to economic conditions and debt-servicing responses to lagged government debt. I incorporate a rich Markov-regime switching process allowing switching along three dimensions: (1) the long-run government debt target, (2) the stabilizing and debt-servicing response coefficients, and (3) fiscal policy volatility. With two possible regimes for each dimension, I allow for eight possible combinations for fiscal policy regimes. Smoothed estimates for the fiscal regimes for the United States over post-war period reveal switching in all three dimensions.

D. Transposing *Jane Eyre*: Race, Inheritance, and Identity in Toni Morrison's *Tar Baby*
Susan Crutchfield (English)

Reading *Tar Baby* (1981) for its structural and thematic transpositions of Charlotte Bronte's *Jane Eyre* (1847) reveals how African-American author Toni Morrison reworks the canonical European female coming-of-age narrative to examine the difficulties of fashioning a rooted, African-American female identity in a global age. Morrison remakes Bronte's fiery governess Jane into the smoldering African-American model and art-historian Jade. Both women navigate sticky social and cultural expectations to make controversial, life-altering decisions about their familial, romantic, and professional lives.

E. The arrival of Unaccompanied Latin@ Child Immigrants in United States English- and Spanish-language Print Media
Megan Strom (Global Cultures & Languages)

More than 60,000 unaccompanied Latin@ children immigrants arrived to the United States in 2014. This research examines how the English- and Spanish-language media cover their arrival. The results indicate that while both newspapers offer substantial coverage of Latin@ child immigration, neither language does so in a timely fashion. With this data, I offer suggestions for immigration reporting in a political climate that is amenable neither to the media nor to immigrants.

F. Using Low-Cost Sonar for Habitat Mapping in Belize's Barrier Reef
Colin Belby (Geography & Earth Science)

The potential for using an inexpensive side-scan fishfinder for habitat mapping was evaluated in Belize's South Water Caye Marine Reserve. Depths mapped by the fishfinder were comparable to those captured by a more complex survey-grade sonar. Substrate types, including sand, seagrass, and coral, were distinguishable on the georeferenced side-scan images. The spatial heterogeneity of the habitat properties will ultimately be analyzed to assess their impact on gene flow between bioluminescent ostracod populations.

G. Phantom Sources: Reconstructing Romantic Love in Weimar Popular Cinema
Marti Lybeck (History)

How did movie audiences in interwar Germany encounter romantic love images and narratives? The presentation explains my research and the challenges of using films that no longer exist as sources.

H. Combining Analytics and Intuition Leads to Better Decisions
Marco Vriens (Marketing)

Data driven is often contrasted with gut feel decision making. The latter is either admired or looked down upon as the remnants of our old brain. There are several issues with this binary view of the world; e.g. (1) mixed evidence of the value of intuition in decision-making, (2) emotions play a vital role in good decisions, and (3) in fast changing markets data driven is too slow. Hence, there are compelling reasons to use intuition. We review the concept of intuition and develop hypotheses as to when and how intuition can and should play a role in managerial intelligence-based decision-making.

I. Ethnicity, Institutions, and Female Legislative Representation
Regina Goodnow (Political Science & Public Administration)

What impact, if any, does the size of ethnic minority populations have on the election of women, and how does ethnicity interact with electoral institutions such as proportional representation and gender quotas in shaping the gender composition of national legislatures?

J. Comparison of Knowledge Representation Methodology
Kyung Hoon (Brian) Yang (Information Systems)

The aim of this research is to apply fuzzy logic as knowledge representation methods for data mining technology when subjective data is handled. First, we define five properties of knowledge: conceptualization, transfer, modification, integration and decomposition. We use this information to design a heuristic algorithm tested on probabilistic input to evaluate accuracy and completeness. With the results, we suggest a heuristic algorithm that combines fuzzy logic and a traditional statistical method.

K. Honey Bee Communications: The Tale of a Sleep-deprived Dancer and Her Unwitting Followers
Barrett Klein (Biology)
David Reineke* (Mathematics & Statistics)

Communication is vital for humans and honey bees alike. Foraging honey bees famously exhibit waggle dances capable of advertising the destination (direction and distance) of a food source to nest mates. When restricted of sleep by a custom-made Insominator, honey bee foragers still perform waggle dances the day following sleep-restriction, but the direction component of their dances is less precise. Signaling is only one half of communication, so what about the receivers of the signals—dance followers confronted with the relatively imprecise dance signals?

L. Avocational Archaeology: Expanding the Archaeological Record
Constance Arzigian (Archaeology & Anthropology)
Jean Dowiasch (Mississippi Valley Archaeology Center)

Over the past 35 years, the Mississippi Valley Archaeology Center has documented hundreds of archaeological sites in southwest Wisconsin that were first identified by collectors or avocational archaeologists. The types of sites, and their geographic distribution complement and significantly expand the information collected by professional archaeologists. GIS distribution maps show the biases introduced if we ignore avocational archaeologists.

M. Recruiting New College Graduates: What Are Students Looking for?
Gwen Achenreiner (Marketing)

Wisconsin employers face challenges when hiring college graduates. Compared to neighboring states, Wisconsin has fewer college graduates and loses college-educated talent to other states, called "brain drain." Lower access to college graduates means employers must be particularly attuned to what graduates are seeking. The current study, based on data collected from 883 business students across ten 4-year UW campuses, provides insight into how new college graduates navigate the job-search process, their job expectations and employment preferences of the millennial generation.

N. Evidence for Contemporary Mercury Contamination from the 17th-19th Century North American Fur Trade
Kris Rolfhus (Chemistry & Biochemistry)

The Grand Portage Trail (MN) was a major historic trade route for native peoples, explorers, and voyageurs, and records indicate that vermilion (a pigment derived from cinnabar ore; HgS) was an important trade item. Our findings, based upon analyses of stable isotopes of mercury (Hg) in soils, sediments, fish, and archived vermilion, suggest that legacy Hg from fur trade activity continues to bleed into the local ecosystem.

O. What is Empathy? Making Distinctions that Matter
Samuel Cocks (Philosophy)

The concept "empathy" is utilized with increasing regularity in a number of different academic disciplines. There is the call to "be empathetic," "show more empathy," "develop empathy," and so forth. The point of this presentation is to (1) show some of the different ways this term is defined, (2) demonstrate how this term is sometimes misused, and if time permits (3) discuss some of the ways in which this "skill" is developed.

P. Integrating Your Scholarship into a Course
Scott Cooper (Biology)

"Tell me and I will forget. Show me and I will remember. Involve me and I will understand. Step back and I will act." We want our students to become scholars in our fields, yet we often don't get past line two of this quote. One solution is to integrate your own scholarship into a course. This allows students to directly experience the scholarly process in your field and may advance your scholarship.

Q. Urban Water Supply in Sub-Saharan Africa: Historical and Emerging Policies and Institutional Arrangements
Daniel Sambu (Geography & Earth Science)

This paper synthesizes the literature on historical and emerging institutional arrangements for urban water supply in Sub-Saharan Africa to highlight successes, drawbacks, and opportunities for improving future water access. It traces the influence of decades-long global water initiatives on urban water policy reforms in the region and reviews evidence on emerging community self-help and partnership models. Finally, it discusses the merits, targets, and potential of the Sustainable Development Goal 6 to improve urban water access in the region. The findings suggest that improving urban water supply in Sub-Saharan Africa requires innovative models that blend the strengths of public, private, and community-based water supply.

R. A "Fireable Offense"?: ESPN's Jemele Hill and the Rhetoric of Public Correction
Kate Lavelle (Communications Studies)

On September 11, 2017, during a Twitter conversation, ESPN's Jemele Hill called President Donald Trump a White supremacist. Hill is one of the few women of color in an opinion role at ESPN. This presentation evaluates media discourse regarding Jemele Hill's Twitter comments that Donald Trump and the National Anthem protests from fall 2017 as an example of the rhetoric of public correction.

S. The Opportunity Cost of Defense Expenditures: A Laboratory Experiment Using Warcraft
Adam Hoffer (Economics)

I use Warcraft video game software to give 158 research participants control of their own real-time virtual civilization. Each participant is randomly assigned to one of three conflict scenarios – peace, conflict, or the threat of conflict. Wealth is produced by using virtual currency to hire workers (economic investment). The same virtual currency can be used to hire military units (military investment) instead. I estimate that a one-unit increase in the ratio of military to economic investment decreases wealth creation between 10.8 and 19.3 percent. Both the conflict and threat of conflict treatments averaged nearly 25 percent less wealth creation than the peace treatment

T. From Archives to Stage: The Martindale Sisters Project
Beth Cherne (Theatre Arts)
Teri Holford (Murphy Library)

Murphy Library's Special Collections houses a unique manuscript collection of family papers, The Katharine Martindale Family Papers 1699-1977. When the finding aid was digitized in 2007 by the Wisconsin Historical Society, the collection was then discovered by a history researcher trying to solve a scholarly mystery surrounding Charles Eastman. In 2010, Teri Holford and Beth Cherne picked up on the story of the Martindale sisters of La Crosse, Katherine and Henrietta, who stood out for their boundary-pushing interests and achievements in early 20th century Midwest America. After poring through boxes of letters and family photos in the library's local history archives, they considered creating a theatrical adaptation of the letters, designed a new devising course for UWL students, and secured a Faculty Research Grant. The result was a dramatic play reading, a form of theater without costume and with minimal stage movement, which was presented on June 7 in La Crosse. Teri and Beth will discuss the process, the end result, and how UWL students were involved in this unique collaboration.

U. Cybersecurity in an Academic Environment--How to be Safe-Informed-Secure [SIS]
James Jorstad (Information Technology Services)

Keeping your data safe and secure has never been more important, especially in academic environments. Learn how to protect your information from attack, damage or unauthorized access and to keep your identity safe. You will also learn how to recognize cyber-attacks such as phishing and ransomware attacks, and understand the worldwide implications of security, in your work and at home. This interactive and engaging session will keep you Safe, Informed and Secure [SIS].

V. Applied Text Analytics: Extracting Business Insight from Open-ended Surveys
Song Chen (Mathematics & Statistics)
Chad Vidden (Mathematics & Statistics)

With this talk, we outline an end-to-end process for extracting business insight from large amounts of open-ended survey responses. Techniques used come from Natural Language Processing (NLP) including topic modelling (Latent Dirichlet Allocation). Ideas will be presented through a case study done in collaboration with the Market Research department at LinkedIn.

W. Latinx Student Leadership in the Post-election Era
Adele Lozano (Student Affairs Administration)

At UWL, like many Midwestern universities, the Latinx undergraduate student population far outnumbers other minoritized racial/ethnic groups on campus. This session will present preliminary findings from a study of how Latinx undergraduate students experience leadership development at historically White institutions in the Midwest, with a focus on how the recent presidential election shapes the way they make meaning of leadership and activism.

X. Hear, Here Poetry: A Review
Ariel Beaujot (History)

In 2017 we added a new dimension to the Hear, Here project: poetry. In this presentation Ariel Beaujot will discuss the poetry contest run by herself and Bill Stobb and discuss the new themes that come out of this work.

Y. Free to Choose: Suboptimal Decision Making in Health Plan Choice
Mary Hamman (Economics)
Taggert J. Brooks* (Economics)

In 2016, an increase in HSA contributions made high deductible health plan (HDHP) offerings objectively better than other plans. Using linked survey and administrative data covering 2015-18, we identify predictors of optimal choice, examine choices among employees who must actively enroll, and assess the impact of an interactive decision tool. We find most employees did not switch to an HDHP, and neither active enrollment nor the decision tool improve choices.

Z. Understanding Very Different Minds
Eric Kraemar (Philosophy)
Brad Seebach (Biology)

Scholars have been looking for the seat of consciousness in the human brain for hundreds of years. But even non-mammalian creatures such as octopuses and cuttlefish engage in complicated behaviors, including the identification of distinct individuals, preferential learning behavior, and modification of life-style to fit new environments. Animal behaviorists who interact extensively with these animals interpret their behaviors to be strongly indicative of consciousness. As any comprehensive account of consciousness must encompass not only humans and their close relatives but all conscious organisms, we consider ramifications of the study of octopuses and cuttlefish for a general theory of consciousness.

*Coauthor unavailable for presentation