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Spokane Intercollegiate Research Conference 2022

Whitworth University

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SPOKANE INTERCOLLEGIATE RESEARCH CONFERENCE

23 APRIL 2022

HOSTED BY WHITWORTH UNIVERSITY

GENERAL SCHEDULE FOR THE DAY

8:30-9:00 – Check-in and poster set-up

9:00-9:10 – Welcome to the Conference

9:15-10:45 – Oral Presentation Panels, Session 1

11:00-12:30 – Poster Presentation Session

12:30-1:30 – Lunch

1:30-3:00 – Oral Presentation Panels, Session 2

3:15-3:30 – Poster Awards and Farewell

Mission

SIRC provides an opportunity for students from across schools, majors and disciplines to present their research and scholarship, receive meaningful feedback, and develop scholarly community.

About the Conference

SIRC has long been co-organized by Whitworth University and Gonzaga University, alternating between campuses in the spring each year. This celebration of research is open to all students in Spokane and more broadly in the Inland Northwest, and it costs nothing to attend. Although the event primarily supports undergraduate research, we have invited all students in our community to celebrate their research as well.

2022 Conference

The 19th Spokane Intercollegiate Research Conference will be hosted by Whitworth University on April 23, 2022. Advanced high school, community college, undergraduate, and graduate students from the greater Spokane area and beyond have been invited to present original, faculty-advised research from any discipline. Submissions include original work conducted as part of classroom activities or performed outside of class under the direction of a faculty mentor. Submissions of abstracts for oral or poster presentations have included the name and contact information of a faculty member who has verified that the proposed work is suitable for a conference within a specific discipline.

Whitworth University

Since 1890, Whitworth has held fast to its founding mission to provide “an education of mind and heart” through rigorous intellectual inquiry guided by dedicated Christian scholars. Recognized as one of the top regional colleges and universities in the West, Whitworth University has an enrollment of nearly 3,000 students and offers more than 100 undergraduate and graduate degree programs. Whitworth University's 200-acre campus of red-brick buildings and tall pines offers a beautiful, inviting and secure learning environment. In all of its endeavors, Whitworth seeks to advance its founder's mission of equipping students to “honor God, follow Christ and serve humanity.”

Acknowledgements

This conference has been made possible by Whitworth University Academic Affairs and the Whitworth University Honors Program. Special thanks to Whitworth University Provost Gregor Thuswaldner, former Whitworth University SIRC Committee Chair Deanna Ojennus, and Gonzaga University Director of Undergraduate Research Matthew Cremeens. Kudos to the 2022 SIRC Organizing Committee: Patricia Bruininks, Bert Emerson, Aaron Griffith, Robin Henager, Philip Measor, Rebecca O'Brien, Diana Schepens, and Bi Zhao. Crucial organizational support, vision-casting, and vision-execution provided by James Probus. IT support from Sophia DuVal and Carter Riley. And deepest thanks to all our participants: the students and faculty who are here today celebrating our research together.

Map and Directions



SIRC will be held in Robinson and Weyerhaeuser Halls (number 36 and 29 respectively).

High-Res map at this link: <https://www.whitworth.edu/cms/media/whitworth/documents/about-whitworth/map-amp-directions/whitworth-campus-map.pdf>

Parking & Food

No permits or stickers are required for parking, and suggested lots are A1, B1, C1 and G1.
Coffee and light pastries at check-in.

Lunch will be available for purchase from Good 'Dilla Tacos and Island Style food trucks between 11:00AM to 2:00PM. The trucks will be located in parking lots D1 and D2, right next to Robinson and Weyerhaeuser Halls.

Graduate Program Representatives & Recruiters

(Weyerhaeuser Hall | 10:30am-2pm)

Eastern Washington University Graduate Programs

Gonzaga University School of Law

Gonzaga University Graduate Programs

Montana State University Graduate Programs

Princeton Seminary

Whitworth University Graduate Programs

Medical Service Corps

SCHEDULE

8:30-9:00am

CHECK-IN AND POSTER SET-UP

Weyerhauser Hall

9:00-9:10am

WELCOME

Dr. Gregor Thuswaldner, Provost, Whitworth University
Weyerhauser 107

9:15-10:45 am

ORAL PRESENTATIONS – SESSION 1

OP.1. Mathematics

Room: Robinson 141

Chair: Dr. Vestal Coufal | Mathematics | Gonzaga University

Killer Whale Population Dynamics

Hannah Cole (*she/her*) – Gonzaga University

Maximizing Components on a Mosaic Knot Part 1

Simon Treile (*he/him*) & Nathan Bina (*he/him*) – Gonzaga University

Maximizing Components on a Mosaic Knot, Part 2

Naomi Halbersleben & Wenshan Wang – Gonzaga University

Topological Data Analysis

Lucas Ogilvie (*he/him*), Katherine Robbins (*she/her*), Leon Garcia-Camargo (*he/him*), & Alexis Ashford (*she/her*) – Gonzaga University

OP.2. Constitutional Law

Room: Weyerhaeuser 204

Chair: Dr. Julia Stronks | Political Science | Whitworth University

For Cause: The Struggle Between Independent Agencies and Separation of Powers

Robert Buller – Whitworth University

Prayer on the Field: How Will the Justices of the U.S Supreme Court Vote?

Skye Gordon (*she/her*) – Whitworth University

NYSRPA v. Bruen: Concealed Carry Licenses and the Second Amendment
Jamie Furr (*he/him*) – Whitworth University

OP.3. Race in American History

Room: Weyerhaeuser 303

Chair: Dr. Aaron Griffith | History | Whitworth University

Racial Horror in America

Erin Jonckers (*she/her*) – Whitworth University

Race, Gender, and the Making of Radical Activism

Bethany Watts (*she/her*) – Whitworth University

Enlightened Racism: Racist Thought and the American Enlightenment

Katherine Boyd – Whitworth University

A Comparison of Audiences of Frederick Douglass' Abolitionist Addresses

Aidan Hollister (*he/him*) – Whitworth University

American Medicine: Human Experimentation and Usage of Enslaved Women in the Antebellum Period

Adriana Pond (*she/her*) – Whitworth University

OP.4. Language: Acquisition and Experience

Room: Weyerhaeuser 203

Chair: Dr. Christina Isabelli | Modern Languages and Literatures | Gonzaga University

Experiences of a Bilingual Family: A Case Study

Streeter Boatright – Gonzaga University

Heritage Language Learners in the Gonzaga University Spanish Program

Lina Maurice (*she/her*) – Gonzaga University

The Maintenance of Euskera in Northern Spain

Dawson Oen (*he/him*) – Gonzaga University

La Frontera Within

Ángela George (*she/her/ella*) – Gonzaga University

OP.5. Politics and Rights of Minority Groups

Room: Robinson 126

Chair: Dr. Bi Zhao | Political Science | Whitworth University

A Tale of Two Eagles: Conflicting Ideas of American and Un-American Before WWII

Caleb Matheny – Whitworth University

Role of the ECHR in Combating Discrimination Against the Roma

Hannah Stoddard (*she/her*) – Whitworth University

Reasoning behind states' attitudes towards refugee policies in OECD countries

Elysee Kazadi – Whitworth University

Apple vs Samsung: Comparing Conglomerate Design and Human Rights Violations

Ashley Sill (*she/her*) – Whitworth University

OP.6. Psychology, Health, and Economics

Room: Robinson 229

Chair: Dr. Patricia Bruininks | Psychology | Whitworth University

Framing Effects on Social Discounting Tasks

Nick Nelson (*he/him*) – Gonzaga University

Student Perception of Conscientiousness and Openness in Lasting Roommate Relationships

Jenna Breedlove (*she/her*) and Kai Wagner (*he/him*) – Whitworth University

Personality and Willingness to Travel

Amara Wentz (*she/her*) and Ariana Wilson (*she/her*) – Gonzaga University

Looking Ahead vs. in the Rear-view Mirror: Impact of Gratitude and Positive Anticipation on Happiness

Jacob Floyd – Whitworth University

Model Selection for Zero-inflated Negative-binomial Regression Models

Mia Brasil and Payton Burks – Gonzaga University

OP.7. Engineering & Physics

Room: Robinson 210

Chair: Dr. Philip Measor | Physics and Engineering | Whitworth University

Optimization Using Fully Stressed Design

Drew Barlow, Alan Champagne, Jem Pedicord, & Sam Albers – Gonzaga University

A Low-Loss 3D Printed Ridge Waveguide via Stereolithography

Helio Ramollari (*he/him*) – Whitworth University

A Biocompatible 3D Printed Microfluidic C. Elegans Analysis Device

Taylor Burchard (*she/her*) – Whitworth University

OP. 8. Race & Ethnicity: An Interdisciplinary Approach

Room: Weyerhaeuser 304

Chair: Dr. Bert Emerson | English | Whitworth University

Ideologies of Hatred: The KKK in the Civil Rights Movement

Gavin Hughes (*he/him*) – Whitworth University

Dreadlocks: The Critical Role of Interpellation in Gentrification

Ben Gonzales (*they/them*) – Gonzaga University

The Impact of Census Translations: Spanish in the United States

Maren Beauchamp (*she/her*) – Gonzaga University

OP. 9. Creative Writing

Room: Weyerhaeuser 205

Chair: Dr. Jake Andrews | English | Whitworth University

Means of Passing: Reckoning With Augustine's Ideas on Time Through Poetry

Aaron Bratt (*he/him*) – Whitworth University

Settle and Live

Hen Fookes (*they/he*) – Whitworth University

Something Will Happen

Nicole Harris (*she/they*) – Whitworth University

The Lesbians

Madison Gotthardt (*she/her*) – Whitworth University

OP. 10. Biology & Chemistry

Room: Robinson 310

Chair: Dr. Gary Chang | Biology | Gonzaga University

Optimizing Expression Conditions and Purification of Recombinant Human Arylsulfatase B

Michael Martin (*he/him*) – Whitworth University

Electrochemical Characterization of Tricarbonyl Rhenium Complexes for Use in CO₂ Reduction

Jericho Simone (*she/her*) – Whitworth University

Efficacy of Cariprazine on Depressive Behaviors in Male and Female SwLo Rats

Chauncella Koulibali (*she/her*) and Alexander Helfrich (*he/him*) – Whitworth University

Caterpillar Development

Caleb Meyer – Whitworth University

11:00-12:30

POSTER SESSIONS

11:00 – 11:45: students with odd-numbered posters should stand with their poster.

11:45 – 12:30: students with even-numbered posters should stand with their poster.

Posters 1-29 – Weyerhauser 111 | Posters 30-58 – Robinson Lobby

PP. 1. Population Dynamics of Bivalves and Gastropods in the Gulf of Nicoya

Abigail Tingstad (*she/her*), Rachel Ponting (*she/her*), Ntsaia Yang (*she/her*) – Whitworth University

PP. 2. Land Use May Impact Water Quality of Small Montane Streams in San Gerardo De Dota, Costa Rica

Tristy Osbon (*she/they*), Nathan Beine (*he/him*), Alexis Mondragon (*she/her*), and Hana Geferos (*she/her*) – Whitworth University

PP. 3. Resolution of Unoccupied Aerial Vehicle Imagery has no Substantial Impact on Detection of Cheatgrass

Hannah Neuberger and Marie Fenske – Whitworth University

PP. 4. The Impacts of Protected Land on Stream Health Within a Tropical Agricultural Context

Brock Peterson (*he/him*), Justyce Brant (*she/her*), Emily Reidt (*she/her*), and Anna Steere (*she/her*) – Whitworth University

PP. 5. Questing along urban trails in Spokane County: the hunt for pathogenic and endosymbiotic bacteria

Mikelle Boice (*she/her*) – Gonzaga University

PP. 6. Tracking Aeromonas Phage throughout the life cycle of wild and lab-reared Culex mosquitoes

Raegan Bowyer (*she/her*) – Gonzaga University

PP. 7. Investigating the Role of Fer Kinase During Embryonic Brain Development in Zebrafish

Madison Korkeakoski (*she/her*) – Whitworth University

PP. 8. Pond Warming and the Impact on Larval Salamanders

Emily Wright (*she/her*) – Gonzaga University

PP. 9. The Chemical Legacy Effect of Invasive Tumble Mustard on the Establishment of Native Seeds

Skylar Jiminez (*she/her*) – Gonzaga University

PP. 10. Which Seed Species are Best Able to Germinate and Establish Following Wildfires?

Hayley Brandecker (*she/her*) – Gonzaga University

PP. 11. Visual Segmentation Using Automatic and Semi-automatic Extraction Techniques

Mason Pritchard (*she/her*) – Gonzaga University

PP. 12. Bacillithiol protects against antibiotics that cause cellular oxidation of *Bacillus subtilis*

Lily Beaulieu (*she/her*) and Kinzie Myers (*she/her*) – Gonzaga University

PP. 13. Correlation Between Population Size and Behavioral Interactions of a Territorial Bee

Anna Knutson, Brooke Rogers, Jake Morton – Gonzaga University

PP. 14. Investigating the Function of ZNF16 as a Potential Transcription Factor

Melia Blankenfield (*she/her*) and Lillian LeBlanc (*she/her*) – Gonzaga University

PP. 15. Novel DNazymes targeting PD-L1 as potential gene therapy for Immune Checkpoint Blockade

Ethan Fuller (*he/him*) – Gonzaga University

PP. 16. Longevity and Sleep Phenotype in TDP-43 Mutant *Drosophila* Models of ALS

Brian Smoots – Gonzaga University

PP. 17. Middle Miocene cetacean fossils from Sharktooth Hill

Rebecca Strauch – Whitworth University

PP. 18. *Melittobia digitata*: Parasitoid Wasps and Survival in Cold Temperatures

Emily Marvin (*she/they*) – Whitworth University

PP. 19. The Effects of Drought on the Hatching Success of Painted Turtles

Mia Mawer (*she/her*) and Emily Hunter – Gonzaga University

PP. 20. Beyond Land Acknowledgements: Ethnobotanical Knowledge of the Indigenous Communities in Spokane, WA

Nina Berry (*she/her*), Caitlin Aenlle-Rocha (*she/her*), Sarah Avila, and Joe Ravin (*he/him*) – Gonzaga University

PP. 21. Envisioning a Future for the Spokane River?

Emily Wright, Jordan Cruz, and Maureen Parks – Gonzaga University

PP. 22. Spokane River Interpretive Signs

Delaney McDermott (*she/her*), Hannah Lord (*she/her*), and Anthony Scholes (*he/him*) – Gonzaga University

PP. 23. Multi-Criteria Assessment for Spokane Sustainability Action Plan

Corey Camacho-Light (*he/him*), Delaney Carr (*she/her*), and Kassie Calabro (*she/her*) – Gonzaga University

PP. 24. Place Based Environmental Elementary Education

Thomas Morris (*he/him*), Kathrine Gustafson (*she/her*), Dillon Reynolds (*he/him*)

PP. 25. A Game Theoretical Mixed Strategy Optimization of Whitworth Admission's First Contact Marketing

Connor Weldy and Ty Heim – Whitworth University

PP. 26. Stability of Explicit Free Parameter Multistep Methods for Second-Order ODE's

Ben Lombardi (*he/him*) – Gonzaga University

PP. 27. Analyzing Störmer-Cowell Predictor-Corrector Methods

Matthew Rhilinger – Gonzaga University

PP. 28. Modeling Motion of Trees in the Wind

Sara Jane Lynn and Max Pansegrau – Gonzaga University

PP. 29. Collaborative Community Building Tool for Novice Computer Science Students

Jakob Kubicki and Katie Imhof – Gonzaga University

PP. 30. Github Copilot: The Future of AI Assisted Programming

Ben Puryear (*he/him*) – Gonzaga University

PP. 31. Activating Oxygen for Catalysis using Zirconium and Redox Active Ligands

Elise Nicol (*she/her*) – Gonzaga University

PP. 32. Exploring the DNA-Binding Potential of Novel Chalcones Synthesized by Gonzaga Students

Duc Hoang (*he/him*) – Gonzaga University

PP. 33. Assessing Enamel Erosion due to Popular Acidic Drinks using Atomic Force Microscopy

Emily Rond (*she/her*) – Gonzaga University

PP. 34. Determining Global Structural Changes to Account for Change in Activity of Dz8-17 and Dz10-23

Matthew Hovancsek (*he/him*) – Gonzaga University

PP. 35. Investigating the Effects of Uracil Damage on Dz8-17's Therapeutic Potential

Cassidy Sebastian (*she/her*) – Gonzaga University

PP. 36. The Consequences of Uracil Incorporation on the Activity of Dz10-23

A. Borbridge (*they/them*) and Paxton Carson (*he/him*) – Gonzaga University

PP. 37. Investigating chalcone binding affinities to bovine serum albumin

Paloma Whitworth (*she/her*) – Gonzaga University

PP. 38. The effects of halogen identity and position on chalcone crystal structures

Makenna Edwards (*she/her*), Lucas Christian, and Kamil Maharramov – Gonzaga University

PP. 39. The Synthesis and Crystallization of a Bis-Chalcone Drug Target for Glioblastoma

Emily DeCocker (*she/her*) – Gonzaga University

PP. 40. Computational Analysis of Non-Coding Functional RNA Adaptation to High Temperatures

Rigel Hall (*he/him*) – Gonzaga University

PP. 41. Functional RNA Adaptation to Extreme Temperatures

Claire Patterson (*she/her*) – Gonzaga University

PP. 42. The Effects of Biological Crowding on Catalytic Hammerhead Ribozymes in vitro

Carrie Baker (*she/her*) – Gonzaga University

PP. 43. Exploring Capillary Electrophoresis for Ion-Ionophore Affinity Measurements in Lipid Environments

Tashi Liebergesell (*she/her*) – Gonzaga University

PP. 44. Determination of Kinetic Characteristics and Factors Required for RquA Function via in Vitro Assays

Lydia Chambers (*they/them*) – Gonzaga University

PP. 45. Visualizing RquA in *Rhodospirillum rubrum* with Fluorescent Tags

Sophia Whitworth (*she/her*) – Gonzaga University

PP. 46. Optimizing PHA Production: Using BcHMGR in a Bioreactor to Make Acetyl-CoA

Sadira Walker (*she/her*) – Gonzaga University

PP. 47. Production and Isolation of Human Omega Amidase protein via *E. coli* Expression System

Benjamin Udem (*he/him*) – Whitworth University

PP. 48. Determining Appropriate Crystal Growing Methods for X-ray Diffraction to Enhance Undergraduate Labs

Drew Hovde – Whitworth University

PP. 49. Hydrogen Embrittlement Testing of 304 Stainless Steel after >2 years of Gaseous Hydrogen Exposure

Xiwen Zhong (*she/her*), Danni Du (*she/her*), – Gonzaga University

PP. 50. Hydrogen Embrittlement Testing of CPT Dogbones after >2 years of Gaseous Hydrogen Exposure

Caleb Lefcort (*he/him*), Jackson Swets and Theodore Ferro (*he/him*) – Gonzaga University

PP. 51. Three-dimensional Motion Capture of Free-Flying Insects

Yuchen Huang, Emily Andresen, Avery Steward, Michael Wiest – Gonzaga University

PP. 52. Regenerating Bonechar Filters for Fluoride Removal in Low-Income Communities

Kyle Nolan (*he/him*) and Nicole Stanton (*she/her*) – Gonzaga University

PP. 53. Fact or Fairytale? Validity and Impact of the Career Beliefs Questionnaire

Jacoby Floyd (*he/his*) – Whitworth University

PP. 54. Spanish in the US: Spanish-speakers in the American Education System

Gabriel Terry (*he/him*) – Gonzaga University

PP. 55. The Effects of a Mirror on Self-Esteem, Reflected Appraisal, and Relationship Satisfaction

Mark Ponce (*he/him*) and Saylor Anderson (*she/her*) – Whitworth University

PP. 56. A Trait Approach to Understanding Mental Health Help-Seeking

Julia Durbin (*she/her*) – Gonzaga University

PP. 57. How the Availability of News Articles affect the Understanding of Personal Importance of Political

Georgia Cosola (*she/her*) – Gonzaga University

PP. 58. The Influence of Hair on Social Judgements

Jackson Guzzo (*he/him*) – Gonzaga University

12:30-1:30

LUNCH BREAK

Outside between Weyerhaeuser and Robinson Halls

1:30-3:00
ORAL PRESENTATIONS - SESSION 4

OP.11. Psychology, Communication, Relationships

Room: Robinson 229

Chair: Dr. Mark Baird | Psychology | Whitworth University

Relational Maximization's Connection to Agentic and Communal Traits

Esther Stocker (*she/her*) – Whitworth University

Preparing Culturally Responsive Teachers: Faculty Surveys, Syllabi Audit Tools, and DEI Resources

Blanca Mejia (*she/her*) – Whitworth University

College Student Communication Preferences when Receiving Good and Bad News

Nicole Juarez Zelaya (*she/her*) – Whitworth University

Social Discounting for Personal Information and Phishing Susceptibility

Kara Borjeson (*she/her*) – Gonzaga University

OP.12. Spanish in the United States

Room: Weyerhaeuser 203

Chair: Dr. Christina Isabelli | Modern Languages and Literatures | Gonzaga University

Generational Opinions on Maintaining Native Languages

Kate Kellen (*she/her*) – Gonzaga University

The Context and Practice of Bilingual Education in Hennepin County, MN

Ella Pfeiffer (*she/her*) – Gonzaga University

Spanish language attitudes and maintenance in Douglas County, WA

Anayeli Trejo Lugo (*she/her*) – Gonzaga University

Bilingual Maintenance After Dual Immersion Programs

Sydney Fluker (*they/them*) – Gonzaga University

Medical Policies and the Spanish Speaking Community

Bradley Suave (*he/him*) – Gonzaga University

OP.13. Gender & Sexuality in the United States

Room: Weyerhaeuser 303

Chair: Dr. Elise Leal | History | Whitworth University

The Ideals of Manliness and the Makings of Football

Isaac Kimmet (*he/him*) – Whitworth University

Essentialism and Sexuality in Modern US Society

Katie Fitzpatrick (*she/her*) – Whitworth University

Threatening Tradition: The Relationship Between Bisexuality and Non-Monogamy in American Culture

Sophie Wilson (*she/her*) – Whitworth University

OP.14. Arts & Literature

Room: Weyerhaeuser 205

Chair: Dr. Meredith Shimizu | Art | Whitworth University

The Strangulation of Beauty in Nabokov's Pale Fire

Dakota Farrer (*she/her*) – Whitworth University

Lady Curzon's Peacock Dress: A Case Study in Fashion's Semiotic Power

Celia Hagey (*she/they*) – Whitworth University

Remedios Varo's To Be Reborn: Invitations of Spiritual Introspection as an Expansion of Feminine Power

Mikaela Massie (*she/her*) – Whitworth University

The Bitter-Sweet Concepts of Felix Gonzalez-Torres

Meredith Fultz (*she/her*) – Whitworth University

Transcending Surrealism: The Life and Work of Roberto Matta

Cori Schuman – Whitworth University

OP.15. Women's Rights

Room: Robinson 126

Chair: Dr. Bi Zhao | Political Science | Whitworth University

Female agency during the transatlantic enlightenment period

Aliza Prieto (*she/her*) – Whitworth University

FBOs and Secular NGOs on Women's Rights Advocacy

Anna McKinney (*she/her*) – Whitworth University

Mary and Elizabeth: The Powers of Male Manipulation

Olivia Lewis (*she/her*) – Gonzaga University

OP.16. Philosophy & Religion

Room: Robinson 141

Chair: Dr. Nicole Sheets | English | Whitworth University

Objectivity and Subjectivity in the Evangelical Religion of Jonathan Edwards

Carson Griffin – Whitworth University

Consensus Theory and Peacekeeping Tactics

Emilie Browning (*she/her*) – Whitworth University

Reclaiming the Body

Elizabeth Rothstrom (*she/her*) – Whitworth University

A Sense of Liberation: How African American Christianity Provided Freedom for the Enslaved

Hannah Sommerville (*she/her*) – Whitworth University

OP.17. Spokane: A Place-Based Story

Room: Robinson 210

Chair: Dr. Jason Scully | Urban & Regional Planning | Eastern Washington University

Ally to the Outcast: Frank Warren's Role in Assisting Japanese American Students during WWII

Rebecca Devereaux (*she/her*) – Whitworth University

Burritos for the People: Anti-Racist Activism in Spokane, Washington

Emma Wood (*she/her*) – Gonzaga University

Barriers and Facilitators to the Creation, Maintenance, and Growth of Tribal Transit Services

Kurtis Johnson (*he/him*) – Eastern Washington University

Graffiti Vandalism: Defining the Role of Crime Prevention Through Environmental Design

Damalie Ndamira (*she/her*) – Eastern Washington University

OP.18. Medicine / Data

Room: Robinson 310

Chair: Dr. Eric Hogle | Mathematics | Gonzaga University

HazARd Real Time Tripping Hazard Augmented Reality System User Experience Prototyping

Alan Poblette (*he/him*) and Kole Davis (*he/him*) – Gonzaga University

Using a Virtual Speech Coach App to Improve Surgeon-Patient Communication
Isabel Iral (*she/her*) – Whitworth University

Child Directed Speech
Jesus Espinoza (*he/him*) – Gonzaga University

Diabetes Stigma Explored Through Social Discounting
Tyler Harris – Gonzaga University

OP.19. History and Politics

Room: Weyerhaeuser 304

Chair: Dr. Aaron Griffith | History | Whitworth University

War Plan Orange; How the Naval War College Defined the Second World War
Connor Donahue (*he/him*) – Whitworth University

Reframing Contemporary Notions of Freedom with The Federalist Papers
Kyle Evers – Whitworth University

Is It a Genocide? Looking at the Uyghur Muslim Crisis and Using History to Address the Question
Jamie Gassman (*he/him*) – Whitworth University

“A Good Government”: Religious and Secular Rhetoric in American Political Discourse
Melinda Mullet (*she/her*) – Whitworth University

OP.20. Constitutional Law II

Room: Weyerhaeuser 204

Chair: Dr. Julia Stronks | Political Science | Whitworth University

Gerrymandering and Racial Discrimination
Drew Lorenc (*he/him*) – Whitworth University

Abortion: An End or A New Beginning?
Monicamarie Kaylor (*she/her*) – Whitworth University

Tsarnaev v. United States
Christian Colwell (*she/her*) – Whitworth University

3:15-3:30
Poster Awards and Farewell
Weyerhaeuser 107