

2026
SUMMER
UNDERGRADUATE
RESEARCH
SYMPOSIUM

Draft Abstract Book



Office of Undergraduate Research

POSTER SYMPOSIUM

Posters sorted by program (if any) and then by the first author's last name within each session. Only presenting authors (italicized) and mentors are listed. Contributing authors and acknowledgements are listed in the abstract book online.

POSTER SESSION 1 | 10:30-11:30AM

ASPIRE REU

1000 *Ruby L Aubin; Chandler Justice;*
Brandon Chase Myke Allen

1001 *Eric Huang; Vijay Gupta; Farbod*
Siahkali

1002 *Adrian Rincon; Vijay Gupta*

DUIRI

1003 *Mudit Pandey; Md Ashiqur*
Rahman; David Warsinger

REU for Built Environment Decarbonization

1004 *Dylan Friedman; Jinwu Xiao;*
Kyubyung Kang

1005 *Julia Gloss; Shanyue Guan;*
Shufan Liu

1006 *Daniel Sears Gregory; Hope*
Rockmore-Johnson; Soowon
Chang; Deniz Besiktepe; Heung
Jin Oh

1007 *Mizuki Kuno; Amber Josfin*
Ramos Pineda; Qingchun Li;
Deniz Besiktepe; Soowon
Chang

1008 *Sophia Sheldon; Chengcheng*
Tao; Xiaoli Xiong

1009 *Nathan Daniel Weston; sogand*
Hasanzadeh

PURE-PD

1010 *Madison Birgy; Sen Lin; Jianxin*
Ma

1011 *Michael Blados; Michael V*
Mickelbart

1012 *Allison Del Sarto; Cankui Zhang*

1013 *Hannah Flis; Samuel Joseph*
Mantel; Angela Hancock

1014 *Kit Hill; Galen Martin*

1015 *Alexus Moriah Johnson; Gyeong*
Mee Yoon; Jae Ho Kim

1016 *Owen Ososki; Sergio Munoz-*
Gomez; Dongseok Kim

1017 *Lila Rivera; Joe Ogas*

1018 *Kayla Saopraseuth; Stanton B*
Gelvin; Lan-Ying Lee

1019 *Bella Turnbull; Chao-Jan Liao;*
Venkatesh P Thirumalaikumar;
Athanas Guzha

1020 *Leah Wong; Ruy Wilhelmus*
Johannes Kortbeek; Natalia
Dudareva

SCARF

1021 *Duncan Patrick Blank; Joe Ogas*

1022 *Reuben Joshua De Dios; Lori*
Hoagland

1023 *Andrew Lucas Freuman; Kari L*
Clase; Stephen Robert Byrn;
Daniel T Smith

- 1024 *Xinhui Katherine Huang*; Jinsu Hong
- 1025 *Sam Nelson Hutjens*; Brenna Lynn Decker
- 1026 *Savana Jankovic*; Mark C Hall; Emily Lynae Danzeisen
- 1027 *Eva Corinne Morie*; Jacob Daniel Hosen; Alexander Charles Collins
- 1028 *Sophia Morris*; Joseph Paul Robinson; Bartek Rajwa
- 1029 *Kae Nielson*; Morgan Emily Furze
- 1030 *Nina O'Tain*; Tingting Ju
- 1031 *Seojin Paek*; Xing Liu
- 1032 *Verasha Pomart*; Lisa S. Mydy
- 1033 *Tongyu Qin*; Yuan Yao
- 1034 *Alexandra Susan Revivo*; Amanda J Deering; Adriana Vanegas Torres
- 1035 *Catherine Song*; Yichao Rui
- 1036 *Sahana Srinivasan*; Clint C S Chapple
- 1037 *Austin Robert Tanabe*; Feng Wang; Su-Ling Liu
- 1038 *Kai Tran*; Bruce R Hamaker
- 1039 *Akhilesh Vigneshwaran*; Weiguo Andy Tao

SROP

- 1040 *Dylan Matthew Diaz*; Yu-Chin Chiu
- 1041 *Kiara C. Méndez Serrano*; Han Chen; Yaohua Feng

- 1042 *David Perez Ramos*; Patricia Marie Wolf
- 1043 *Emma Sullinger*; Linda S Lee; Ariana Jolie Lazo
- 1044 *Dannah Rose Urban*; Jennifer Chung; Thekla Morgenroth; Kira K Means
- 1045 *Makenna Wevick*; Jianxin Ma; Leonie Marie Trabert
- 1046 *Eunice Zhang*; Marcus Mann

SURF

- 1047 *Maria Catalina Aceros*; Fernando Aguilera De Alba; Michael G Heinz
- 1048 *Bolortsetseg Adiya*; Alexandra Blair Clark; Laura J Pyrak-Nolte
- 1049 *Minseong An*; Martin Byung-Guk Jun; Junmyoung Jang
- 1050 *Rishab Anand*; Tae Yoon Kim; Md Foysal Rabbi
- 1051 *David Felipe Arguello Patino*; Megan K Van Dyke; Yuehwern Yih
- 1052 *Sidharth Bhatt*; Yaguang Zhang; Fabio Andres Castiblanco Rubio
- 1053 *Juan I Cantarella*; Kyle Henry Jung; Marisol Koslowski; Joshua Mark Block
- 1054 *Logan Ray Thomas Carleton*; Laura J Pyrak-Nolte
- 1055 *Avery Chan*; Arezoo Ardekani; David Perez Herrera
- 1056 *Daniel Chi Hsien Chen Sandi*; Jun Kim; Taimoor Hasan Qazi

- 1057 *Brendan Edward Crump*; Ayotunde Olaoluwa Alabi; David Hibbitts
- 1058 *Guilherme de Souza Correa*; Luis Gerardo Romaguera-Rios; Thomas H Siegmund
- 1059 *Kelcie Edrea T Estrera*; Denny Yu
- 1060 *Hongsen Fang*; Dianyun Zhang; Yao Sun; Sai Krishna Meka
- 1061 *Auriani Faviola Gomez Cintron*; Agnes Doszpoly; Tamara L Kinzer-Ursem
- 1062 *Gabriela Gomez Langebeck*; Lori Hoagland; Cristian Andres Salinas Castillo
- 1063 *Nicolas Gomez Velasquez*; Jan-Anders E Mansson; Adeline Nora Ripberger
- 1064 *Vincent John Graciano*; Bren H Legarreta; Diane Collard; Steven F Son
- 1065 *Sicheng He*; Qiuyang Xiao; Li Zhan
- 1066 *Jamie Chanadol Henson*; Kai X Keller; Yooseung Choi
- 1067 *Kira Howe*; Saloni Darji; Sourish Biswas; David Thompson
- 1068 *Joseph Anthony Janicek*; Govindi Soba Rashmiraji Walimuni Dewage; Xindi Tang; Qiaorong Xie; Julia Laskin
- 1069 *Daniel Esteban Jara Moreno*; Anish Yadav; Christina W Li
- 1070 *Yizheng Jiang*; Denny Yu; Jingkun Wang
- 1071 *Brayden Kauffmann*; Tiancong Zhu; Daniel Johannes Jung
- 1072 *Nathan Maharaj Kharwanlang*; Chenfei Zhu
- 1073 *Kyungmin Kim*; Fabio Andres Castiblanco Rubio
- 1074 *Mary C Kirby*; Caitlin Rose Proctor; Addrita Haque
- 1075 *Anna Louise Kokosa*; Grigorii Aleksandrovich Rudakov; Tamara L Kinzer-Ursem
- 1076 *Akhil Kota*; Shraman Pal; Can Li
- 1077 *Emily Danielle Kushner*; Joseph Flanagan; Jihoon Park; Sudipta Mondal; Kenneth H Sandhage; Kevin P Trumble
- 1078 *Andre Lee*; David Iseri Inouye; Easton Luke-Earl Currie; Mingyu Kim
- 1079 *Sooji Lee*; Greg M Michalski
- 1080 *Woojun Lee*; euiwon Bae
- 1081 *Zonghan Lei*; Linda Nie
- 1082 *Ana Sofia Leiva Aldana*; D. Marshall Porterfield; Richard John Barker
- 1083 *Zhixin Li*; Lei Wang
- 1084 *Somi Lim*; Caitlin Rose Proctor
- 1085 *Bingyi Liu*; Chenfei Zhu
- 1086 *Sophia D Madrazo*; Anna Elizabeth Davis; Gabriel Jordan Lovinger
- 1087 *Aidan Josef Monark*; Kali Nicole Konstantinopoulos; Trevor Jaan Shoaf
- 1088 *Sohyun Moon*; Mahmudul Hoq; Hosop Shin

- 1089 *Keira Alexandra Murphy*; Paula Belmont Coelho; Andrew Whelton
- 1090 *Srinath Eswaran Neelamagam*; Shrikrishna Bhagirath Rajule
- 1091 *Natalia Nino Cocoma*; Jhon Edison Martinez; Riyl Shi
- 1092 *Isabel M Owens*; Shalini Iyer; Chittaranjan Das; Nuela Enebechi
- 1093 *Minho Park*; Martin Byung-Guk Jun; Junmyoung Jang
- 1094 *Yixuan Ren*; Joydeep Rakshit; Saloni Darji
- 1095 *Zachary Ryan Roeder*; Kendra A Erk; Evan R Williams; Matthew Kaboolian
- 1096 *Nasser H Sanwari*; Grigorii Aleksandrovich Rudakov; Tamara L Kinzer-Ursem; Leopold Noel Green
- 1097 *Rohan Ashish Shrowty*; David Warsinger; Mateo Roldan Carvajal
- 1098 *Udaiveer Singh*; Rajiv Ranjan; Dharmendra Saraswat
- 1099 *Paul Shannon Slack*; Md Rakibul Islam Prince
- 1100 *Daniela Solarte Rodriguez*; Lena Azimi; Guinan Guo; Melba M Crawford
- 1101 *Robert Scott Sorensen*; Bruno Tesini Roseguini
- 1102 *Nicholas Audrie Steeves*; Nickolas Richard Brauer; Jean A Chmielewski
- 1103 *Abhaya Sundar*; Ritwik Bhattacharya; Abhinanda Sengupta; Partha P Mukherjee
- 1104 *Likhita Tinga*; Aidan Damian Pantoya; Jalen Riley Macatangay; Jason John Wilkening; Alejandro H Strachan
- 1105 *Mai Khanh Tran*; Joao Vitor Carvalho Almeida; Jenna L Wise DiVincenzo
- 1106 *Emerson Waltz*; Reagan Cole Huckabee; Rajamani P Gounder
- 1107 *Minghan Wang*; Yifan Wang
- 1108 *Ryan James Williams*; Rusi P Taleyarkhan; Stepan Ozerov
- 1109 *Ryan Wu*; Weihang Li; Melba M Crawford
- 1110 *Ruoqin Rachel Yang*; Nicholas Noinaj; Laszlo Csonka
- 1111 *Feng Ye*; Qiuyue Xue
- 1112 *Kai-Xing Yue*; David Warsinger; Mateo Roldan Carvajal
- 1113 *Lucia X Zhang*; chongli Yuan; Han Zhao
- SURF-SCALE**
- 1114 *Seth Everette Cowan*; Rusi P Taleyarkhan; Stepan Ozerov
- 1115 *Conner B Stott*; Isik Gokcen Karslioglu; Timothy Matthew Jones
- UREP-C/LA**
- 1116 *Angie Ginnella Batista*; Juan Pablo Rodriguez Lopez; Dutt Jagdish Thakkar; Steven R Dunlop

- 1117 *Ana Maria Cifuentes Pinilla*; Christina R Ferreira; Dipak Narula
- 1118 *Maria Jose Suarez Monroy*; Christina R Ferreira; Maria Soledad Sepulveda; Tyler D Hoskins

Vet Scholars Summer Program

- 1119 *Kotoe Jodie Yoshitomi*; Sun Young Kim

Additional Presenters

- 1120 *Qianyue Chen*; Jan-Frederik Schulte; Yao Yao
- 1121 *Kym-Danny Dyah Francis*; Ismar Leonel Chew; Monique Suzanne McClain
- 1122 *Anne C. Lim*; Sanah Kochhar; Siqi Zhang; Sarah Eason
- 1123 *Carlos Alexis Ortiz Gonzalez*; Kaushik Roy
- 1124 *Maheen Syed*; Nikita Krishnan; Shatha Jameel Mufti; Riya Shi
- 1125 *Sunny Yoon*; Brandon Keehn

POSTER SESSION 2 | 12:00-1:00PM

DUIRI

- 1200 *Changho Lee*; Garam Kim; Eduardo Barocio Vaca
- 1201 *Gia Phong Phuong*; Jose M Garcia Bravo
- 1202 *Ava Robinson*; Walter Daniel Leon-Salas

REU for Genetic and Biochemical Analysis of Proteins

- 1203 *Alan Cortes*; Vikki Marie Weake; Seth Daniel Lammert
- 1204 *Savannah Doty*; Kyle Aaron Cottrell; Cassandra Smoak
- 1205 *Kendra Eller*; Hana Hall; Geethma Lirushie Tellambure Vithanage; Kendall Cottingham
- 1206 *Teresa Hayden*; Majid Kazemian; An My Nguyen
- 1207 *Erwin Kingston*; Andrew D Mesecar; Nidhi Walia

- 1208 *Marlayna Little*; Humaira Gowher; Mudasir Zahoor
- 1209 *Christopher Powell*; Weiguo Andy Tao; Shakhzodjon Uzokboev
- 1210 *Kyannet Rodriguez-Cruz*; Xing Liu; Rajasi Somesh Dravid

REU in SCBB

- 1211 *Nycholas Contreras*; Carol B Post; Rajarshi Roy
- 1212 *Sebastian Cruz*; Jinho Jang; Danzhou Yang
- 1213 *Laura Dong*; Daisuke Kihara; Anika Jain
- 1214 *Roman Matamoros*; Momen Mohamed Am Al-Hindy; Zhong-Yin Zhang
- 1215 *Tyler Paine*; John Tesmer; Sandali Lakmini Piladuwa Gamage

- 1216 *Isaiah Philip*; Genki Terashi;
Daisuke Kihara
- 1217 *Emily Truong*; Mingqing Liu;
Rong Huang; Nicholas Noinaj
- 1218 *Anika Vaz*; Marlyn Michelle
Bush; Nicholas Noinaj

SRQP

- 1219 *Arianis Loraine Hernández
Peña*; michael Wendt; Yun Li
- 1220 *Alexander Nikos Koron*; Jessica
Hsu
- 1221 *Jasmine Yichen Lu*; Teri Kirby;
Linh Nghiem Hai Pham
- 1222 *Erin Rodriguez*; Lin Tan; Kevin
Zhang
- 1223 *Lena Yvonne Grace Rotteveel*;
Yan Cong
- 1224 *Abner Obed Ruiz Pérez*; Cary D
Troy

SURF

- 1225 *Md Sadat Aarik*; David
Warsinger; Davide Ziviani; Md
Ashiqur Rahman
- 1226 *Agustin Abt*; Ethan Wayne
Holbrook; Alejandro H Strachan
- 1227 *Garv Atri*; Linlin Li
- 1228 *Aritra Barman*; Saghnik Saha;
Ming Yu Ngai
- 1229 *Olivia Bell*; Craig Goergen;
Benjamin Zeidler
- 1230 *Anushka Bhavé*; Caue Sciascia
Borlina; Anastasia Kouvaras
Ostrowski; Ali Bramson
- 1231 *Cole J Burnett*; Jan-Anders E
Mansson; Adeline Nora
Ripberger

- 1232 *Emma Caron*; Riley Bradley
Barta; Ganesh
Brammanayagam venkatesan
- 1233 *Anirud Chakkarapani*; Luz
Sotelo; Harshith Kumar Adepu;
Davis Roy Avera
- 1234 *Pin-Yu Chen*; Junyuan Lu;
Jingang Li
- 1235 *Martinos Christodoulides*;
Nathaniel Liam Lazorchak; Ken
Yoshida
- 1236 *Allison Clark*; Sergio Munoz-
Gomez
- 1237 *William Thomas Covington*;
Laura Elaine Murray-Kolb; Emily
Rebekah Seiger
- 1238 *Sylvia Isabella Diaz*; Sarah
Gustafson Wagers; Rajamani P
Gounder
- 1239 *Abhigyan Doshi*; Pranshu Maan;
Alexander V Kildishev
- 1240 *Pavle Duric*; Fabio Andres
Castiblanco Rubio; Yaguang
Zhang; Andrew Balmos; James
V Krogmeier
- 1241 *Emma Foster*; Grigorii
Aleksandrovich Rudakov;
Tamara L Kinzer-Ursem;
Leopold Noel Green
- 1242 *Akshith Garapati*; Dharmendra
Saraswat; David Iseri Inouye;
Rajiv Ranjan
- 1243 *Juan Garcia*; Hector Gomez
Diaz; Mahmoud Golestanian; Lin
Tan
- 1244 *Gabriela Garcia Cardenas*;
Dylan Kenji Wainwright; Matthew
Kaboolian; Hana Noell Larkins;
Kendra A Erk

- 1245 *Medhansh Garg*; Danny Milisavljevic; Danielle Dickinson
- 1246 *Elijah Goodman*; Dan Jiao; Hongyang Liu
- 1247 *Arsh Gupta*; Connor Siurek; Daniel G Aliaga; Eric Samperton
- 1248 *Caleb Carr Hamilton*; Yue Meng
- 1249 *Ananya Hegde*; Xiaoping Bao; Jingqiao Shen
- 1250 *Valeria Raquel Hernandez Barboza*; Michael R Gribkov
- 1251 *Ana Maria Hernandez Conde*; Joaquin Goñi
- 1252 *Kenli Hetrick*; Matthew Louis Scarpelli; MacKenzie Coon-Haworth
- 1253 *Habin Jang*; Arezoo Ardekani; Elham Saberian
- 1254 *Mia Alexandra Jensen*; Jinyang Du; Luis Solorio
- 1255 *Julia Kang*; Shubh Parag Mehta; Craig Goergen; Benjamin Landis
- 1256 *Pataraphol Keeraswangporn*; Fabio Andres Castiblanco Rubio; Yaguang Zhang
- 1257 *Rohan Kelkar*; Dianyun Zhang; Yao Sun
- 1258 *Kai X Keller*; Jamie Chanadol Henson; Yooseung Choi; Ran Dai
- 1259 *Emma M Kindwall*; Nissa Larson; Linlin Li; David M Umulis
- 1260 *Joseph Timothy Krittenbrink*; Alex Santiago-Vargas; Dimitrios Peroulis
- 1261 *Caleb Eunho Lee*; Hector Gomez Diaz; Mahmoud Golestanian; Jing Gao
- 1262 *Yoon gi Lee*; Juan Carlos Verduzco Gastelum; Alejandro H Strachan
- 1263 *Anastasia Patricia Lesniewski*; Laura J Pyrak-Nolte; Alexandra Blair Clark
- 1264 *Guanting Li*; Leyu Liu; Zhenhua Zeng
- 1265 *Ailuen Liu*; Mina Carpenter; Christopher H Uyeda
- 1266 *Katherine Mader*; Amina Asghar; Christina W Li
- 1267 *Ryan Y Manley*; Vladimir M Shalaev; Alexandra Boltasseva; Arnab Banerjee
- 1268 *Dominic Nathaniel Muniz*; Laura Helen Blumenschein; Priyanka Balkrishna Bhovad; Ethan Michael DeVries; Jack Rearden Ferlazzo
- 1269 *Abhishek Manoj Nair*; Kosuke Ando; Satyaroop Patnaik; Nikhilesh Chawla
- 1270 *Nathan Nguyen*; Arezoo Ardekani; Prasheel Shivanand Nakate
- 1271 *Rebecca Rose Phelan*; Grigorii Aleksandrovich Rudakov; Tamara L Kinzer-Ursem
- 1272 *Caleb Jonathan Radtke*; Alex Perry; Matthew Leight; Varun Aggarwal
- 1273 *Rushil Ramchand*; Zheyuan Zhang; Muhammad ibtsaam Qadir; Fiona Kolbinger

- 1274 *Amrita Rani Raparti*; Deva Chan
- 1275 *Andrea Rocha Barajas*; Dhiya eddine Belkadi; Muhammad Mustafa Hussain; Min Sung Kim; Yusuf Kolawole Adebakin
- 1276 *Shreeya Roy*; Donghoon Lee; Karin F K Ejendal; Tamara L Kinzer-Ursem
- 1277 *Hiya Samanta*; Anastasia Kouvaras Ostrowski; Caue Sciascia Borlina; Ali Bramson
- 1278 *Fang Rui Shen*; Ali Mashhadian; Arezoo Ardekani
- 1279 *Connor Siurek*; *Arsh Gupta*; Daniel G Aliaga; Eric Samperton
- 1280 *Yuwen Song*; Christina W Li; Mah Gull
- 1281 *Colleen Ryan Squier*; Stephen Craig Mills; Christopher G Oakley
- 1282 *Vincent Stavig*; Erica Carlson; Matthew Davis Golden; Po-Yu Chen
- 1283 *Christopher Robert Stemporzewski*; Alexey Shashurin
- 1284 *Raveena Venkateshwaran*; Daniel Suter; Jorge Emanuel Hernandez Dominguez
- 1285 *Henan Wang*; Zeshu Wang; Haitong Li
- 1286 *Alissa Weigand*; Tonglei Li; Koushiki Basu
- 1287 *Katie Wilkinson*; Colton Dean Willhardt; Daniel Robert Guildenbecher
- 1288 *Lorelei B Xia*; Jinho Jang; Danzhou Yang
- 1289 *Zihan O Zeng*; Yuelin Deng; Upinder Kaur
- 1290 *Francine Yu He Zhang*; Nicole Elizabeth Mertens; Tuba Marjan; Taimoor Hasan Qazi
- SURF-SCALE**
- 1291 *Louis Vincent Buonaiuto*; Andrew Owen Fewell; Peter Bermel
- 1292 *Elisa Chen*; Linda Nie; Ellen M Wells; Carolina Gonzalez Canas; Justin Farmer
- 1293 *William Eunseok Jo*; Shubhra Bansal; Haohan Guo
- 1294 *Keegan M Kita*; Alexander Gregory Sinelli; Allen L Garner
- 1295 *Aryan Rauniyar*; *Agustin Abt*; Ethan Wayne Holbrook; Alejandro H Strachan
- 1296 *Luke Alexander Trahin*; Allen L Garner; Alexander Gregory Sinelli
- Vet Scholars Summer Program**
- 1297 *Teegan Acres*; Emma Dell Stapley
- 1298 *Katrina Mason*; Ahmed Abdelkhale Hassan
- 1299 *Quynh Lam Nguyen*; Harm Hogenesch
- 1300 *Vianca A. Rios Brito*; Michelle L Tucker
- 1301 *Thanya Thotakura*; Leanne Nieforth; Sarah Jean Reega
- 1302 *Xander L Tuttle*; Dianne Little

1303 *Cheyenne Renee Waddell;*
Michael Wendt; Sydney P
Quijano

Additional Presenters

1304 *Israel Adenuga; Alessandra Orr;*
Jolissa Abeh; Ernest Francis
Talarico, Jr.; Evan Roberts;
Kathryn Stolzenbach; Corinne
Zimmerman; Caitlin Gallagher

1305 *Basil Alojao;* Amanda P Siegel;
Andres Tovar; Andrew Nuetzel

1306 *Saishri Bagde;* Alexandra
Boltasseva; Miroslava Marinova
Marinova; Kyu Ri Choi

1307 *Aarushi Gupta;* Nasreen Lalani

1308 *Thomas James Haack;* Ernest
Francis Talarico, Jr.; Hassan Naji

1309 *Mia R Hannah;* Roger Nicholas
Bryant

1310 *Ahmed Khan;* Hyewon Seo;
Behzad Esmaeili

1311 *Olivia Lucille Kimmick; Alessia*
Lin Heiser; Ahmed Abdelkhale
Hassan

1312 *Jada E Laskowski;* Subhashree
Subramanyam

1313 *Andrew Yicheng Li;* Andres
Tovar; Amanda P Siegel

1314 *Seona James Mathew; Lorelle*
Estella ro Fletcher; Morgan
Denae Furlow; Daniel J Foti

1315 *Milagros Melhem Bertagni;*
Andres Tovar; Amanda P Siegel;
Ken Yoshida

1316 *A'Mya Murray Coleman;* Leanne
Nieforth

1317 *Samuel J Patchin;* Ernest
Francis Talarico, Jr.

1318 *Madeline Marie Peterson;* Lori
Hoagland; Laura Elisa Garcia
Giraldo

1319 *Aditya Pillai;* Viju Vijayan Pillai;
Shyamkumar TS

1320 *Alvan Ramee;* Md Ashique
Rahman; David Warsinger

1321 *Gregorio Romagnoli Oliveira;*
Angeline M Lyon; Leon Filip
Laskowski

1322 *Julian Leonard Smith;* Sara
Elizabeth Cloft; Darrin M
Karcher; Patrice E Baumhardt;
Esteban Fernandez-Juricic

1323 *Esha Sury; Dhruv Upreti;* Erika
Birgit Kaufmann; Ralph Martin
Kaufmann

1324 *Shanell Andria Taylor;* Sara
Elizabeth Cloft; Darrin M
Karcher

1325 *Jacob Junjie Zhang;* Shaiv
Mehra; Bradley S Duerstock

POSTER SESSION 3 | 1:30-2:30PM

DUIRI

1400 *Noah Daniel Brooks;* Tian Li

1401 *Kayla A Fischer;* Eesha Khalid
Faruqi; Meera Pancholi Doran;
Craig Goergen

- 1402 *Robert Humphreys*; Austin Rory Cooper
- 1403 *Prisha Marpu*; Nan Kong; Yingjie Chen; Haopeng Zhou
- 1404 *Amanda Nesbitt*; chongli Yuan; Xihui Zhao
- 1417 *Renee Duan*; Andrew James Simonson; Collin Michael Queen; David Hibbitts
- 1418 *Rohan Joseph Eapen*; Sandro Matosevic; Tyler Parker Fritsch; Zachary Ashton Chu Leung; Soumyajit Das

SURF

- 1405 *Paridhi Agarwal*; Martin R Okos; Dharmendra Saraswat; Daniel N Hauersperger
- 1406 *Zoe Amerman*; Guang Lin
- 1407 *Ruhaan Batta*; Junyuan Lu; Jingang Li
- 1408 *Helen Sophia Brzozowski*; Kenneth H Sandhage; Joseph Flanagan; Kevin P Trumble
- 1409 *Nicolas Bustamante*; Li Qiao; Samarpan Farmer
- 1410 *Eeshwar Ram Chalasani*; Linlin Li
- 1411 *Anna S Chambers*; Sarah Gustafson Wagers; Rajamani P Gounder
- 1412 *Mihir S Chauhan*; Aniket Bera
- 1413 *Andrew Thomas Choung*; Amy R Reibman
- 1414 *John G Christian*; Ashwin Ramachandran; Raghav Ram; Shubhonil Sarkar
- 1415 *Wen Xun Chua*; Shaista Ijaz Khan; Zhenhua Zeng; Yilin Lu; Leyu Liu
- 1416 *Abigail R Deaton*; Grigori Aleksandrovich Rudakov
- 1419 *Ava Fuchs*; Joseph Wallace; Olivia Nicole White; Dyann Marie Segvich
- 1420 *Parthav Garg*; Lei Wang
- 1421 *Diego Alejandro Hernandez Acosta*; Vitaliy L Rayz; Farshid Goudarzian; Grace Elizabeth Palahnuk; Defne Ekici
- 1422 *Rinat Ilyussizov*; Ben K D Pearce; Ishaan Madan
- 1423 *Juyeon Im*; Losha Dasol Jung
- 1424 *Leonardo Isaac de Medeiros*; Luis Sanjuan; Luis Solorio
- 1425 *Delfina B Jackson*; Arezoo Ardekani; Elham Saberian; David Perez Herrera; Rizwan Ullah
- 1426 *Dev Vishwash Joshi*; Waqas Alam; David Warsinger
- 1427 *Pradyunn Vikram Kale*; Micah Kurt Condie; James Michael Goppert
- 1428 *Abel Paul Sholey Kallely*; Aaron B Morris; Timmy Ngo
- 1429 *Adam Lewis Kipp*; Kevin J Webb; Hatim Bamoumen; Farhan Ishraque Zahin
- 1430 *Hrshikesh Murli Krishna*; Jane Ann Mondul
- 1431 *Yuet Ching Jolie Lai*; Zachary Kalen Kingston

- | | | | |
|------|---|------|---|
| 1432 | <i>Hao-Chen Li</i> ; Haitham Kanakri; Maher E Rizkalla | 1450 | <i>Daniel J V Pike</i> ; Zherui Martinez-Guo; Adithya Kolisetty |
| 1433 | <i>Leland Li</i> ; Can Li; PIYUSH SHARMA; Quinn Huckaba | 1451 | <i>Jacob Lee Prior</i> ; Amy R Reibman |
| 1434 | <i>Khanh Mai</i> ; Ahreum Lee; Divyansh Rathore | 1452 | <i>Reyam Roumeih</i> ; Reem Khir |
| 1435 | <i>Sri Krishna Teja Mannava</i> ; Andres Eduardo Llacsahuanga Allcca; Leonid P Rokhinson | 1453 | <i>William James Rowe</i> ; Yuto Tanaka |
| 1436 | <i>Vedha Masuraha</i> ; Babak Anasori | 1454 | <i>Chris Schoenherr</i> ; Kaitlyn Amber Kondos; Amit Varma; Shivam Sharma |
| 1437 | <i>Caden S McCollum</i> ; Lei Wang | 1455 | <i>Leonel Baskin Sesuraj Baskin</i> ; Matthew Thomas Tegtmeier |
| 1438 | <i>Sahda Mohammadu Haroon</i> ; Xavier I Morgan-Lange; David Warsinger | 1456 | <i>Ziqi Shen</i> ; Anubhav Dey; Ilias Bilonis |
| 1439 | <i>Lucas Munoz</i> ; Walter Daniel Leon-Salas | 1457 | <i>Leonor Antunes Sinogas</i> ; Shulan Xiao; Linlin Li |
| 1440 | <i>Saran S Nagubandi</i> ; Jason Wu | 1458 | <i>Peter Robertson Skrdla</i> ; Alex Santiago-Vargas |
| 1441 | <i>Ishan Gopu Nair</i> ; Md Ashiqur Rahman; David Warsinger | 1459 | <i>Aditya Srinivasan</i> ; Shuaiqing Zhang; Yihang Zeng |
| 1442 | <i>Malavika Nair</i> ; Tejas Ravindra Kulkarni; Sadha Sivam Murugesan; Xiaoyue Zhang; Ganesh Subbarayan | 1460 | <i>Kaylani Le'mae Tomlin</i> ; Sarah Gustafson Wagers; Rajamani P Gounder |
| 1443 | <i>Khoa Duc Khoa Nguyen</i> ; Yu She; Zhengtong Xu | 1461 | <i>Gabriel Torres</i> ; Saru Bharti; Upinder Kaur |
| 1444 | <i>Jannah M Noshi</i> ; Xiaoling Chen | 1462 | <i>Sreeram Vengalloor Madhavan</i> ; Niranjana Hirisave Shivaram; Russell Lee Zimmerman |
| 1445 | <i>Zoe Noznesky</i> ; Brandon Delos Parker; Michael Earl Reppert | 1463 | <i>Clayton Walden</i> ; Qixin He; Bianca Shaunessy Broyles |
| 1446 | <i>Evelynn Marie Papez</i> ; Elizabeth Tarami Su; Kevin John Otto | 1464 | <i>Serena Yuanyuan Wei</i> ; Jaewon Park; Justin Weibel |
| 1447 | <i>Isaac Parks</i> ; Xavier I Morgan-Lange; David Warsinger | 1465 | <i>Sophie J Wilcox</i> ; Christina Marie Boody |
| 1448 | <i>Kavyaa Parmar</i> ; Atiksh Bhattacharya; Shilo Xia | 1466 | <i>Ty Richard Yaguchi</i> ; Hosop Shin; Mahmudul Hoq |
| 1449 | <i>Truman Carl Parrish</i> ; Ananya Molugu; Andy Jung; Ace Rounds | | |

1467 *Eric Y Yang*; chongli Yuan

1468 *Eloise Zambrano*; Elizabeth I Parkinson; Carson Bailey Roberts

1469 *Caleb Enos Zhang*; Alexander V Kildishev; Pranshu Maan

SURF-SCALE

1470 *Sana Azat*; Austin Jacob Pronk

1471 *Owen Chen*; Peter Bermel

1472 *Nathan Grant Clark*; Shauna Nicole Adams; Kerrie Douglas; Jill Anne Folkerts

1473 *John W Fabian*; Majid Khorsandi; Linda Nie

1474 *Olyver Fierro*; Shauna Nicole Adams; Kerrie Douglas; Jill Anne Folkerts

1475 *Richard Zhixiong Li*; Yingru Song; Jungmin Lee; Amy M Marconnet

1476 *Nadine Yifei Poon*; Matthew M Niichel

1477 *Nikhil K Raman*; Fariha Haq; Marisol Koslowski

1478 *Junyi Xiu*; Shauna Nicole Adams; Kerrie Douglas; Jill Anne Folkerts

UREP-C/LA

1479 *Harol Esteban Botero Soto*; Satish Kumar Adari; Rodrigo Salgado; Monica Prezzi

1480 *Luis Felipe Pardo Diaz*; Soowon Chang; Heung Jin Oh; Daniel Francisco Castro

1481 *Maria Alejandra Saavedra Mogotocoro*; Michael Titus

Additional Presenters

1482 *Abigail Catherine Alexander*; Marxa Figueiredo

1483 *Kaya Aypek*; Sabine Brunswicker

1484 *Gabrielle Marie Barrido*; Marxa Figueiredo; Gabriel Steven Harris; Kurt Ristroph

1485 *Jacob Bastian*; Chad C Carroll; Gordon Carl Smilanich

1486 *Akshita Bhavanishankar*; Grace Ulmer; Marcelo Invitti

1487 *Ivana Naomi Bilic*; Douglas R Schmitt

1488 *Phoebe Burrell*; Elizabeth I Parkinson; Manuela Frias Gomez

1489 *Hannah Marie Cano*; Jo Otremba

1490 *Daniel Michael Carrel*; Brady Layman; Jeffrey Edward Dick

1491 *Kaleb Caudle*; Megan Leigh Hill; Jeremy Hugh Lawrence; Md Arif Faisal; James Hoang Nguyen; Jeffrey Edward Dick

1492 *Nha Chau*; Ernest Francis Talarico, Jr.; Thach Nguyen

1493 *Hannah Everette*; Moriah Tzivia Bilenky

1494 *Karis Ge Fu*; Reeya Tanwar

1495 *Matthew Tomasz Galej*; Mary Anne Smart

1496 *Michael David Gardner*; Brian Metzger

1497 *Huda Touqeer Hussain*; Ahmed Abdelkhale Hassan

- 1498 *Andrea Carmen Jacobson*; Sharon A Kessler; Sowmiya Devi Venkatesan
- 1499 *Lucas O Johnson*; Elizabeth I Parkinson; Paisley Lilliana Jeannette; Zachary Logan Budimir
- 1500 *Aditya H Joshi*; Tiancong Zhu; Daniel Johannes Jung
- 1501 *Sai Kasturi Kamila*; *Melody Christine Yang*; Zherui Martinez-Guo; Adithya Kolisetty; Tyler Dillard
- 1502 *Ian Kim*; Seema Mattoo
- 1503 *Khanh Le*; Ernest Francis Talarico, Jr.; Thach Nguyen
- 1504 *Belinda Xintian Li*; Daniel S Elliott; Diego Esteban Garcia
- 1505 *Dhruva Magesh*; *Mateusz Wlodarczyk*; Ernest Francis Talarico, Jr.; Thach Nguyen
- 1506 *Aditi Magesh*; Laia Vancells Lopez; Nan Kong
- 1507 *Kelly Marie Makovic*; Leanne Nieforth; Sarah Jean Reega
- 1508 *Ashlynn R McLaughlin*; Maria Soledad Sepulveda
- 1509 *Noah Miller*; Pranav Ballaney; Madduri Srinivasarao
- 1510 *Ngoc Nguyen*; Ernest Francis Talarico, Jr.; Thach Nguyen
- 1511 *Thai Nguyen*; Ernest Francis Talarico, Jr.; Thach Nguyen
- 1512 *Ngoc Anh T Nguyen*; Ernest Francis Talarico, Jr.
- 1513 *Muneera Shoaib Rasheed*; Shaiv Mehra; Bradley S Duerstock
- 1514 *Amanda Rodriguez-Gonzalez*; Mobina Masdari
- 1515 *Timothy A Schmiedl*; *Diya Shivpuje*; Yihang Zeng; Nemanja Ninkovic
- 1516 *Muhammad F Shaaban*; Joseph Gerard Makin
- 1517 *Jayden Shah*; *Ngoc Anh T Nguyen*; Ernest Francis Talarico, Jr.; Thach Nguyen
- 1518 *Maia Stef-Praun*; Lia A Stanciu-Gregory; Zhijian Wang; Amit Kumar Barui
- 1519 *Korphiena Kimona Stephen*; Shaiv Mehra; Bradley S Duerstock
- 1520 *Devikaa Prashant Thakker*; Douglas R Schmitt
- 1521 *Vo Uyen*; Ernest Francis Talarico, Jr.; Thach Nguyen; Loc Vu
- 1522 *Tomas Vargas-Bernal*; Pablo D Zavattieri; Marie Kate Palau Andrade
- 1523 *Alexander Webb*; Brian Metzger
- 1524 *Jennifer Hyerin Yang*; Robyn Krystal De Dios; Stephanie M Gardner
- 1525 *Richard Z Zhang*; Linda Nie

RESEARCH TALKS

Only presenting authors (italicized) and mentors are listed. Contributing authors and acknowledgements are listed later in the abstract book.

RESEARCH TALK SESSION 1 | 10:00AM-11:00AM

ROOM: GRIS 103

- 10:00am
7000 Nanoscale Thermal Transport Mapping and Interfacial Constraints of Individual Layers for Titanium Carbide (Ti₃C₂Tx) MXene
Johanna Walther; Ram Eknath Munde; Raisul Islam
- 10:20am
7001 Atomization of Fuel in the Pre-vaporization Tube of a Small-Scale Annular Gas Turbine Combustor
Levi Hammerbeck; Amogh Natu; Daniel Robert Guildenbecher
- 10:40am
7002 Event and Passing Detection for Football (Soccer)
Boyang Zhang; Jan-Anders E Mansson; Daniel Castro Mesa

ROOM: GRIS 118

- 10:00am
7003 BioreactorMR: An AI-Augmented Mixed-Reality Tool for Collaborative Bioreactor Education
Azeem Ehtisham; Xinyu Zhang; Ehijie Ebewe
- 10:20am
7004 Finding the Story in the Sound: A Language-Model-Driven System for Synchronized Audio and Lyrical Narrative Visualization
William Andres Bayona Vergara; Rua Mae Williams
- 10:40am
7005 Graph-Theoretic Observability and Redundancy Analysis for Large-Scale Water Treatment and Distribution Systems
Mihir Samanyu Talamudipi; Kris Villez; David Warsinger

ROOM: GRIS 126

- 10:00am
7006 Acoustic Enhancement of Porous Filters in HVAC Systems for Submicron Bioaerosol Removal
Tyler Hughes; Sudharshan Anandan
- 10:20am
7007 Pixel-Wise Gamma-Ray Coincidence Detection Using U-Net Convolutional Networks
Samuel D Bryan; *Erick Vazquez Torres*; Andy Jung; Ace Rounds
- 10:40am
7008 Radar-Based Identification of Buried Lava Flows in the Moon's South Pole-Aitken Basin
Liliana Triscari; Ali Bramson

ROOM: GRIS 133

- 10:00am
7009 Vision-Based Runway Detection
Kabir Jain; Sabine Brunswicker; Jayanth Shreekumar
- 10:20am
7010 Beyond Diameter: Biomechanical Phenotyping of Pediatric Aortic Root Dilation Across Etiologies
Julian Vuong; Shubh Parag Mehta; Craig Goergen; Benjamin Landis

10:40am Pulse-Flow Reverse Osmosis
7011 *Taher Mustafa Mukadam; Ali Naderi Beni; David Warsinger*

ROOM: GRIS 134

10:00am Determining Regulation of PACT via Phosphorylation in TNBC
7012 *Keeley Ann Rohrer; Kyle Aaron Cottrell*

10:20am Investigating substitutions in Hypervariable Region 1 of Hepatitis C virus envelope protein E2 to improve antibody binding
7013 *Mei Qi Gordon-Washington; Ryan George Peters; Richard J Kuhn*

10:40am High-Resolution Cellular STA using Ribosome Alignment
7014 *Anna Boeva; Kristy Rochon; Samuel Hartzler; Lauren Ann Metskas*

RESEARCH TALK SESSION 2 | 11:00AM-12:00PM

ROOM: GRIS 103

11:00am Recovering Behaviorally-Relevant Neural Trajectories from Motor Cortex Using Dynamical and Probabilistic Models
7015 *Samridh Tiwari; Om Tejas Kolhe*

11:20am Ice-Droplet Interaction with Supersonic Shock Waves
7016 *Alex Perry; Caleb Jonathan Radtke; Matthew Leight; Varun Aggarwal; Adam Carson Lay*

11:40am Building Morphosyntactic Networks for Precision Assessment and Intervention in Preschool-aged Children
7017 *Ronald Liu Tsai; Mariel Schroeder; Arielle Borovsky*

ROOM: GRIS 118

11:00am Force Generation and Contraction of the Actin Cytoskeleton
7018 *Vahin Pichairaj; Tae Yoon Kim; Jeffery Robert Coulter*

11:20am Designing a Game-Based Learning Platform for Teaching Mathematical Optimization
7019 *Huy Bao Huynh; Danial Davarnia*

11:40am ChemOperator: A Reproducible Simulation Library for Chemical Engineering Operator Learning
7020 *Rohan Patel; Sergey Gusev; Anja Hribljan; David Esteban Bernal Neira*

ROOM: GRIS 126

11:00am Neural Network Predictors for Learning General Quantum Systems Environments
7021 *Chee Ying Tay; Pranshu Maan*

11:20am Evaluating the Cardiotoxicity of Doxorubicin Using 4D Echocardiology
7022 *Helen Yee; Craig Goergen; Benjamin Zeidler*

11:40am Impact of Varying Wall Temperature on Hypersonic Boundary-Layer Transition
7023 *Michael Oscar Greenlee; Brandon C Chynoweth*

ROOM: GRIS 133

- 11:00am
7024 Digital Inline Holographic Particle Tracking Velocimetry for High-Image-Density Particle Erosion Characterization
Yi Yang Hsu; Daniel Robert Guildenbecher; Amy Chang
- 11:20am
7025 Enhancing the Mechanical Reliability of Free-Standing Laser-Induced Graphene through Process and Material Design
Elena Paias Ferreira; Wenzhuo Wu; Pedro Henrique de Souza Barbosa
- 11:40am
7026 Design and Noise Characterization of a Low-Noise Voltage Preamplifier for Nanovolt-Scale Measurements
Shashank Varamballi; Leonid P Rokhinson

ROOM: GRIS 134

- 11:00am
7027 Tau-Jet Matching and Tag-and-Probe Tau Tagging Efficiencies for $HH \rightarrow b\bar{b} \tau^+ \tau^-$ Searches Using Run 3 CMS Scouting Data
Annella Bellot; Jan-Frederik Schulte; Yao Yao
- 11:20am
7028 Inert-Atmosphere Assembly of Encapsulated Air-Sensitive vdW Heterostructures with Machine-Learning Layer Identification
Manaswini Singh; Tiancong Zhu
- 11:40am
7029 Molecular thresholds for activation and fratricide by anti-B7-H3 CAR T cells
Nicole Shashurin; Shalini T Low-Nam

RESEARCH TALK SESSION 3 | 12:00PM-1:00PM

ROOM: GRIS 103

- 12:00pm
7030 Semantic Processing and Early Language Learning (SPELL)
Changyeol Im; Paris Gappmayr
- 12:20pm
7031 A Market-Driven Framework for Neutron Detection: Aligning Detector Technologies with Emerging Nuclear Applications
Lucas K Philip; Joseph F Pekny; Parker Haven LaTour
- 12:40pm
7032 Compact Single-Shot Ranging, Locating and Multi-Scale Imaging Using Metasurfaces
Roy Liu; Qi Guo

ROOM: GRIS 118

- 12:00pm
7033 Sustainable Manufacturing of Aerospace Composite Structures using High-performing Bio-based Epoxy Systems
Luis Mariano Avalos Campa; Isabelle Schaeckel; Jonathan J Wilker
- 12:20pm
7034 Machine Learning for Fast Decision Generation in Engineering Optimization
Samuel Kinstlinger; Shraman Pal; Can Li
- 12:40pm
7035 Cellulose Nanocrystals as a Biotemplate for Gold Nanomaterial Synthesis
Raina Wang; Chao-Hsiang Chang; Michael T Harris

ROOM: GRIS 126

- 12:00pm
7036 Review of Current Nursing Practice Regarding Phosphate Replacement Therapy Administration in an Intensive Care Environment
Caihla Timbang; Ellen M Schellhase; Monica Miller
- 12:20pm
7037 "Structural Characterization of N-terminally ubiquitinated BAP1 in complex with Ub-VME"
Donovan Dewitt; Abigail Marie Wight; Nipuni Maleesha Pannala; Chittaranjan Das
- 12:40pm
7038 Comparing B-Factors and Local Resolution as Metrics of Cryo-EM Protein Structure Quality
Jalynn Somerville; Ramaswamy Subramanian; Trung T. Thach

ROOM: GRIS 133

- 12:00pm
7039 Controlled Assembly of Amphiphilic Janus Particles in Polymer Matrix for Novel 3D Printing Applications In Space
Kevin Santiago Pineda Rojas; Carlos J Martinez
- 12:20pm
7040 Buildup, Instrumentation, and Optical Diagnostics for the Purdue High-speed Automated Sand Erosion Rig (PHASER)
Justin Babilino; Amy Chang; Daniel Robert Guildenbecher
- 12:40pm
7041 Photoelastic Gel Pad for Vision-Based Tactile Sensing
Samuel Timothy Bibeau; Yu She; Md Rakibul Islam Prince

ROOM: GRIS 134

- 12:00pm
7042 A Non-Invasive Acoustic Sensing System for Sleep Bruxism Screening
Aaruni Singh; Saeed Mohammadi; Babak Ziaie
- 12:20pm
7043 Evaluation of Control Strategies for Drone Path Tracking and Cooperative Multi-Agent Exploration of Indoor Environments
Ediz Guzey; Shreyas Sundaram; Younggil Chang
- 12:40pm
7044 Comparison of scanning electron microscopy and histological observations of human aorta tissue
Bea Olivia Cabot; Shubh Parag Mehta; Cortland Hannah Johns; Craig Goergen; Benjamin Landis

RESEARCH TALK SESSION 4 | 1:00PM-2:00PM

ROOM: GRIS 103

- 1:00pm
7045 Enhancing Tennis Racket Feel Through Multi-Material Additive Manufacturing of Handle Pallets
Drake R Augustine; Jan-Anders E Mansson; Adeline Nora Ripberger
- 1:20pm
7046 Risk Exposure of U.S. Industry Sectors to Oil Price Shocks
Santiago Melo Munoz; Stephan Robert Biller; Steven R Dunlop
- 1:40pm
7047 Computational Design and Optimization of Functionally Graded TPMS Heat Exchangers
Wyatt Soberg Catz; Jaewon Park; Justin Weibel

ROOM: GRIS 118

- 1:00pm
7048 Pressure-Triggered Contact Sensing for Fully Mechanical Soft Robotic Response
Juan Pablo Monge Mesen; Juan Camilo Osorio Pinzon; Jhonatan Steven Rincon Angarita; Andres Arrieta Diaz
- 1:20pm
7049 Socioeconomic Status as a Moderator of ACT Outcomes in Caregivers of Children with Neurogenetic Conditions
Chenrui Yin; Lyndsey Nicole Graham; Bridgette Kelleher; Daniel J Foti
- 1:40pm
7050 Fluid-Powered Autonomy: Embedded Fluidic Oscillators for Pneumatic and Hydraulic Soft Robots
Camila Uribe; Juan Camilo Osorio Pinzon; Jhonatan Steven Rincon Angarita; Andres Arrieta Diaz

ROOM: GRIS 126

- 1:00pm
7051 AI-Guided Engineering of Lipocalin Scaffolds for Programmable Small-Molecule Recognition
Atharva Bhatta; Kanaga Vijayan Dhanabalan
- 1:20pm
7052 Machine-Learning-Driven Nuclear Band Reconstruction from γ - γ Coincidence Data
Josiah W Beauchaine; Ace Rounds; Andy Jung
- 1:40pm
7053 Thermosensitive Histidine Dehydrogenase (HisD) Mutants in *Salmonella typhimurium*
Olivia Nicole Safranek; Nicholas Noinaj; Laszlo Csonka

ROOM: GRIS 133

- 1:00pm
7054 DNA Origami Nanocube Scaffold for Production of Multiple Therapeutic RNA Sequences
Logan M Murray; Leopold Noel Green
- 1:20pm
7055 NASA Hydrogen Drone Refueling Project
William Zheng; Holman Lau; Li Qiao
- 1:40pm
7056 Investigating Zinc Incorporation During Zn-MFI Synthesis for Fuel and Chemical Production
Alana N White; Rajamani P Gounder; Sarah Gustafson Wagers

ROOM: GRIS 134

- 1:00pm
7057 Engineering Technology: How Do Entry Pathways Relate to Preparation, Satisfaction, and Career Confidence?
Japtag Singh Bamrah; Charis Knoerr; Anne M Lucietto
- 1:20pm
7058 High-Resolution Thermal Warpage Measurement Using 3D Laser Vibrometry and Optical Profilometry
Ishaan Brar; Ujjawal Arya; Ganesh Subbarayan
- 1:40pm
7059 Developmental Neurotoxicity of Trifluoroacetic Acid (TFA): Oxidative Stress and Neurotransmitter Responses in Zebrafish
Maxwell J Gootee; Jennifer Freeman; Umamaheswari Sathisaran

RESEARCH TALK SESSION 5 | 2:00PM-3:00PM

ROOM: GRIS 103

- 2:00pm
7060 Characterizing Structural and Mechanical Femoral Outcomes in a Murine Model of Alcohol Use Disorder and Type 2 Diabetes
Isabelle Anne Hunt; Joseph Wallace; Dyann Marie Segvich; Olivia Nicole White
- 2:20pm
7061 A Looking Glass Into the Future of Disease in a Warmer World: Susceptibility to *Metschnikowia bicuspidata* Infection in *Daphni*
Ana Martinez; Jonathan Lopez; Catherine L Searle
- 2:40pm
7062 Synthesis of biotemplated palladium-coated nanorods on cellulose nanocrystals
Halaya Vann; Chao-Hsiang Chang; Michael T Harris

ROOM: GRIS 118

- 2:00pm
7063 Mapping the Stacking and Surface Chemistry Landscape of MXenes and Metal Carbides via DFT and Molecular Dynamics
Samiya Balu; Aidan Damian Pantoya
- 2:20pm
7064 Miniaturizing X-Ray Fluorescence Spectroscopy Through Simulation-Driven Vacuum Chamber Design
Ashwin Natarajan; Abu Sayed Mohammed Sayam; Aaron James Secht
- 2:40pm
7065 Comparison of Neutron Detectors and Evaluation of Shielding Materials for Space Microelectronics
Jack G Darby; Rusi P Taleyarkhan; Stepan Ozerov; Everett John Nally

ROOM: GRIS 126

- 2:00pm
7066 Supply chain regionalization and the viability of an AI server hub for Latin America: a system dynamics analysis of Panama
Natasha Catherine Farias Cisneros; Reem Khir
- 2:20pm
7067 An automated workflow for Multi-Omics Analysis using Solvent Touch Extraction.
Jesus Esteban Ladino Giraldo; Christina R Ferreira; Ryan T Hilger
- 2:40pm
7068 A Conductive Polymer-Based Approach to Soft Tactile Sensing for Robotic Manipulation
Jeronimo Contreras Castaneda; Ramses Martinez

ROOM: GRIS 133

- 2:00pm
7069 Bioinspired Continuum Robot
Eain Dræ Oo; Denyse Isingizwe; Timothy M Whalen
- 2:20pm
7070 Collapse of the Human Thermal Body Plume: Modeling and Characterization of Gravity-Dependent Gas Exchange
Henry Ewald; D. Marshall Porterfield
- 2:40pm
7071 Beyond the Game: Exploring Sport, Culture, and Community Through Experiential Learning in Türkiye
Aarushi Gupta; Dwaine H Jengolley; Natasha Duncan

ROOM: GRIS 134

- 2:00pm
7072 City Sounds: How Increasing Noise Impacts the Host-Seeking Behavior of a Frog-Biting Mosquito
Nina Rose Hall; Ximena Bernal; Richa Singh
- 2:20pm
7073 Effects of Cancer-Associated Fibroblasts on Pancreatic Cancer Cell Migration Under Hypoxic Conditions
Ambhranee Yakkundi; Chi Zhang
- 2:40pm
7074 Optimization of a Folate Conjugated Fully Modified miR-34a for Enhanced Stability, Uptake, and Activity
Aindri Abhishek Singh; Shreyas Ganesan Iyer; Andrea L Kasinski

RESEARCH TALK SESSION 6 | 3:00PM-4:00PM

ROOM: GRIS 103

- 3:00pm
7075 Modeling Thin Membrane Response to Time-Varying Forces
Carman Stanton; Hatim Bamoumen; Farhan Ishraque Zahin; Kevin J Webb
- 3:20pm
7076 Movement Pattern Analysis in Football (Soccer)
Pranav Tallapaka; Jan-Anders E Mansson; Daniel Castro Mesa
- 3:40pm
7077 Soft Growing Robot Cap's Sensor Integration
Ana Clara de Medeiros Moraes; Laura Helen Blumenschein; Priyanka Balkrishna Bhovad; Ethan Michael DeVries; Jack Rearden Ferlazzo

ROOM: GRIS 118

- 3:00pm
7078 BioSimulateAI: Turning Plain-Language Descriptions into Multi-Scale Biological Simulations
Aarush Agarwal; Linlin Li
- 3:20pm
7079 Investigating Performance of Nanosilica and Non-traditional and Natural Pozzolans in Type IL Cementitious systems
Aryan Daga; Anelya Zhussupbekova
- 3:40pm
7080 Beyond Task Completion: Training Computer-Use Agents to Evaluate Usability
Rishab Sai Vempati; Jason Wu

ROOM: GRIS 126

- 3:00pm
7081 The Impact of a Snack Inspired by the Dieta de la Milpa on Cardiovascular-Kidney-Metabolic Health in Hispanic Individuals
Kaylei Lank; Annabel Biruete
- 3:20pm
7082 Process-Level Digital Twin Guide for Flow Optimization and Interoperability in a Semiconductor Backend Manufacturing Plant
Ana Susana Deng Guan; Young-Jun Son

ROOM: GRIS 133

- 3:00pm
7083 Understanding Differences in Active Learning Classroom Typologies
Odalís Joana Campos Vasquez; Barbara Young

3:20pm Temperature Annealing Properties of a Commercial Optical
7084 Transceiver in the Subcritical Pile and Nuclear Reactor
Brandon Anthony Farber; Andrew Owen Fewell; Peter Bermel

ROOM: GRIS 134

3:00pm Bumblebee, a Foundation Model for Particle Physics Discovery
7085 *Cara Suh; Miaoyuan liu*

3:20pm Couples Perceptions of Family Functioning in Military Families
7086 with a PTSD Service Dog: A Convergent Mixed Methods Analysis
Tatum Reese Ebbeskotte; Leanne Nieforth

3:40pm Structural and Electronic Investigation of ACIGS Chalcopyrites
7087 using Density Functional Theory
Yutika Vasudeo Sawant; Arun Kumar Mannodi Kanakkithodi

VIRTUAL PRESENTATIONS

*Presentations available on the Symposium website July 27-31, 2026.
Presentations sorted by program (if any) and then by first author's last
name. Only presenting authors (italicized) and mentors are listed.
Contributing authors and acknowledgements are listed in the abstract
book online.*

ANVIL REU

- 9000 Rosen Center for Advanced Computing Anvil REU Project #3-
 Elastic Cloud Scheduling for Anvil
 Angello Bravo; Shelby Stall; LJ Lumas; Frank C Bakhit
- 9001 GTAP Insight Engine: AI Agents for Scientific Computing
 Eric Jin; Howie Lin; Mihir Ahlawat; Haniye Kashgarani
- 9002 GTAP Insight Engine: AI Agents for Scientific Computing
 Howie Lin; Eric Jin; Mihir Ahlawat; Haniye Kashgarani
- 9003 Rosen Center for Advanced Computing Anvil REU Project #3-
 Elastic Cloud Scheduling for Anvil
 Shelby Stall; Angello Bravo; LJ Lumas; Frank C Bakhit
- 9004 Pelican as a Data Delivery Mechanism for HPC Workflows on Anvil
 Branden Turner; Guangzhen Jin; Bithi De

DUIRI

- 9005 Beyond Accuracy: A Calibrated Instrument for Certifying the
 Trustworthiness of LLM-Generated Clinical Hypotheses
 Utkarsh Bali; Xuanyu Chen; Pengyi Shi

SURF-SCALE

- 9006 Systematic Gap Analysis for SoC Curriculum Development
 *Eileen Koh; Shauna Nicole Adams; Kerrie Douglas; Jill Anne
 Folkerts*

ADDITIONAL PRESENTATIONS

- 9007 A Medication Safety Analysis of Delayed Critical Medication
 Administration
 Peyton Rose Collier; Ellen M Schellhase; Monica Miller
- 9008 Hyperspectral Imaging and Machine Learning Pipeline for Non-
 Destructive Defect and Strain Mapping in 2D Semiconductors
 Shashwat Goel; Srivalli Akella; Sanket Goel
- 9009 Bayesian Parameter Estimation for Nonlinear Dynamical Systems
 Ansh Grover; Sabine Brunswicker
- 9010 Audit of Use of Enoxaparin for Off Label Indications Post Cardiac
 Surgery
 Kylie Elizabeth Hall; Ellen M Schellhase

- 9011 Low-Cost Microfluidic Devices for Live Zebrafish Imaging of Wound Healing and Immune Response
Vianca Jelu; Qing Deng
- 9012 Vancomycin Functionalized DNA Hydrogel on Titanium Surfaces Against Implant Infections
Ikechi M Johnson; Leopold Noel Green; Luis Gabriel Montalvo Gonzalez; Jeffery Godwin Chibueze Ibekwe
- 9013 Analysis of Interventions made by Specialist Pharmacists during Annual Review of Cystic Fibrosis Patients
Emma Claire Kruyer; Ellen M Schellhase
- 9014 Anthracycline Maximum Lifetime Doses and Cardiotoxicity Risk Assessment Tools
Jessica Anna Malecki; Ellen M Schellhase; Monica Miller
- 9015 A Simulated Comparison of Propulsor Placement in Cargo Planes Implementing Boundary Layer Ingestion
Maximilianne Manuel; Michelle S Ulmer
- 9016 Hardware-aware code optimization using LLM fine-tuning with pairwise multi-objective DPO driven by a Lagrangian relaxation
Stefan Teodor Maxim; James C Davis; Huiyun Peng
- 9017 Modelling Multiple Pathologies of Alzheimer's Disease Using Human-Mouse Chimeric Brains
Akhil Pinnapareddy; Ranjie Xu; Yanru Ji
- 9018 A Stability-Aware Machine Learning Framework for Immune-Related Prognostic Gene Signatures in Breast Cancer Relapse
Ramya Prasanna; Nan Kong; Laia Vancells Lopez; Shen Chang
- 9019 AI's Effect on Cybersecurity Insider Threats
Sloka Sanampudi; Marcus K Rogers; Tatiana Ringenberg
- 9020 A Cloud-deployed Platform to Generate Expert-Annotated Data for AI-assisted Nursing Skills Assessment
Eric Tang; Shen Chang; Nan Kong
- 9021 Analysis of Semaglutide Eligibility in Hospitalized Patients Receiving High Intensity Statins
Brooke Thornburg; Ellen M Schellhase
- 9022 Evaluating Bayesian Optimization in Mixed-Variable Infrastructure Selection
Taylor Scott Vicente; Xiaoyu Liu
- 9023 Heuristic-Based Chemoenzymatic Retrosynthesis Planner for Complex Chemicals in Drug Manufacturing
Sahil Yadav; Karthik Sankaranarayanan; Sowmya Alichy