The 19th SJSU College of Science Student Research Day (SRD19)

Twenty Years of SRD!
(first held in May 2005)

Program

SRD 19 includes over 100 posters which represent research projects conducted by students working in the laboratories of COS faculty. The posters are organized by Department and by a number. During the SRD (11am to 2pm) many student authors will be present to answer questions about their research. You can wander around the posters and talk to any of the student researchers, or read through the list and find any specific projects that may be of interest to you.
1. **FINE-SCALE FORAGING MOVEMENTS OF PIGEON GUILLEMOtS* (*Cephus columba*) ON SOUTHEAST FARALLON ISLAND.**
   Student Authors: Stella Solasz
   Faculty: Scott Shaffer
   Collaborators: Dr. Mike Johns, Pete Warzybok, Jaime Jahncke

2. **HISTOLOGICAL ANALYSIS OF MAMMARY GLAND DEVELOPMENT IN MICE WITH A LOSS OF SIRTUIN 4**
   Student Authors: Allyzza A. Alonzo*, Adrian Ordonez*, Joanne Khau
   Faculty: Frank K. Huynh

3. **NaV1.1 AND NaV1.6 PLAY UNIQUE AND ESSENTIAL ROLES IN MUSCLE SPINDLE AFFERENT FUNCTION IN ADULT MICE**
   Student Authors: Serena Ortiz
   Faculty: Katherine A. Wilkinson
   Collaborators: Cyrrus Espino; Theanne N. Griffith

5. **RESOLVING AMBIGUITIES IN A DISJUNCT CLADE OF HOMALOTHECIUM**
   Student authors: Larke Reeber
   Faculty: Ben Carter; Susan Lambrecht

6. **IDENTIFYING PROTEINS THAT MEDIATE CELLULAR BEHAVIORS IN RESPONSE TO HIGHER INTRACELLULAR pH**
   Student authors: Laura Martins, Madelaine Surette, Ramy Wong, Daniel Orozco
   Faculty: Bree Grillo-Hill

7. **EFFECTS OF INCREASED PHI ON THE ONCOGENE RASV12 DURING TUMOR FORMATION**
   Student Authors: Luz Arvizu, Katie Taloff, Melissa Rodriguez, Jeslin Jacob, Yadanar Khin, and Kruthi Kumar
   Faculty: Bree Grillo-Hill

8. **INCREASED INTRACELLULAR PH PROMOTES AUTOPHAGIC CELL DEATH**
   Aaliyah Molina, Alan Wong, Kimberly Nguyen, Antonio Bibiano, Papa Sagna, James Tower, Carly Montan Stein, Hillary Gates, Liz Lopez
   Faculty: Bree Grillo-Hill

9. **RIBOSWITCH DEVELOPMENT FOR DETECTION OF COXSACKIEVIRUS B3 IN WATER**
   Student Authors: Marelyn Negrete, Andrew Townsend, Jonathan Auyong
   Faculty: William Andreopoulos, Leila Khatib

10. **WHAT IS FOAMING IN OUR WASTEWATER?**
    Student Authors: Armando C Gatica, Paola Mendez, Nharmadhaa Manickam, Nitya Iyer, Kaori McDa
    Faculty: Cleber Ouverney
    Collaborators: Payal Sarkar
11. **RESPONSES OF JAW MORPHOLOGY TO ENVIRONMENTAL CONDITIONS IN RED URCHINS FROM AN URCHIN BARREN AND KELP FOREST**
   Student Authors: Nhi Ly; Ryan Hallisey
   Faculty: Maya deVries

12. **EFFECTS OF SEAWATER FLOW RATE ON THE GROWTH, MORPHOLOGY, AND COMPOSITION OF RED ABALONE SHELLS IN AN INTEGRATED MULTITROPHIC AQUACULTURE (IMTA) SYSTEM**
   Student Authors: David Oliver Brown, Noah Kolander, Christina Lazaro
   Faculty: Maya deVries
   Collaborators: Scott Hamilton, Luke Gardner, Mike Graham

13. **THE EFFECT OF SEAWATER FLOW RATE ON RED ABALONE GROWTH AND SHELL STRENGTH USING INTEGRATED MULTI-TROPHIC AQUACULTURE (IMTA)**
   Student Authors: Christina Lazaro, Noah Kolander, David Oliver Brown
   Faculty: Maya deVries
   Collaborators: Scott Hamilton, Luke Gardner, Mike Graham

14. **ETHANOL INTERACTS WITH MUTATIONS IN PARKIN TO DAMAGE THE CENTRAL NERVOUS SYSTEM DURING DROSOPHILA DEVELOPMENT**
   Student Authors: Monica Flores Tapia; Navneet Sanghera; Reza Almassi
   Faculty: Rachael French

15. **ETHANOL INTERACTS WITH ALZHEIMER'S DISEASE-CAUSING MUTATIONS TO EXACERBATE CENTRAL NERVOUS SYSTEM DEFECTS IN A FLY MODEL OF FETAL ALCOHOL SYNDROME**
   Student Authors: Aylia Abbas; Desiree Filardo
   Faculty: Rachael French

16. **HOME IGNITION ZONE WILDFIRE MITIGATION INFLUENCE ON FUELS AND PLANTS AND VICE VERSA**
   Student Authors: David Benterou, Kanako Kato;
   Faculty: Will Russell, and Kate Wilkin
   Collaborators: Amanda Stasiewicz

17. **THE ROLE OF PAR-3 IN POLARITY RECOVERY IN THE C. elegans INTESTINE**
   Student Authors: Rebecca Brodsky, LaRen Dees, Colton Duke, Eden Ephrem, Alyza Jane Escuadro, Nitika Fnu Ravneet Kaur, Mariam Mortada, Nick Phillips, Jaedyn Rollins, Zoe Upham, Mahati Varanasi, Lauren Cote, Jessica Feldman
   Faculty: Melissa Pickett

18. **POSSIBLE REDUNDANT ROLE OF PAR-1 IN APICO-BASOLATERAL POLARITY ESTABLISHMENT OR MAINTENANCE IN THE C. elegans INTESTINE**
   Student Authors: Colton Duke, Zoe Upham, Nitika Fnu, Ravneet Kaur
   Faculty: Melissa Pickett
19. HISTOLOGICAL ANALYSIS OF TESTICULAR STRUCTURE IN MICE WITH A LOSS OF SIRTUIN 4
Student Authors: Echo Lee, Arshia Hamzehpour Savojbalaghi, Albert Nguyen
Faculty: Frank K. Huynh

20. THE EFFECT OF MATERNAL AND INDIVIDUAL STRESS ON LATENCY TO EMERGE IN FENCE LIZARDS
Student Authors: Amber Singh; Tanushri Rana; Rochelle Sanidad; Emma Wen
Faculty: David Ensminger

21. THE EFFECT OF MATERNAL AND INDIVIDUAL STRESS ON HABITAT SELECTION IN FENCE LIZARDS
Students: Amber Singh, Ivan Ko, Huda Kose, Tanushri Rana, Rochelle Sanidad, Suhai Velasquez Acosta, Tony Vo, Emma Wen
Faculty: David Ensminger

22. THE EFFECT OF ACUTE AND CHRONIC STRESS ON ELEPHANT SEAL METABOLOME
Student Authors: Mohamed Ali Wone
Faculty: David Ensminger
Collaborators: Diana Daniela Moreno Santillan, Jose Pablo Vazquez-Medina; Collaborators affiliation, Integrative Physiology, UC Berkeley

23. DETERMINING THE ROLE OF THE COTRANSCRIPTIONAL REPRESSOR HAIRLESS (HR) IN HEART MUSCLE CELL PROLIFERATION
Student Authors: Ariana Leung, Herman Huang
Faculty: Alexander Payumo

24. ADRENERGIC REGULATION OF CARDIOMYOCYTE SIZE, MOTILITY, AND MIGRATION
Student Authors: Wahida Akter, Herman Huang, Jacquelyn Simmons
Faculty: Alexander Payumo

25. INTERFERON REGULATORY FACTOR-1: A CANDIDATE INHIBITOR OF MAMMALIAN CARDIOMYOCYTE PROLIFERATION
Student Authors: Tianna Young, Maia E. Quan, Herman Huang
Faculty: Alexander Payumo

26. SURVIVAL OF PHI-6 GENOTYPES IN ACIDIC ENVIRONMENTS
Student Authors: Beth Wyatt, Kelly Thich, Aruna Gomathinayagam
Faculty: Sonia Singhal

27. EXPERIMENTAL EVOLUTION OF PHI-6 CYSTOVIRUS UNDER HEAT SHOCK TREATMENTS
Student authors: Parnian Pour Bahrami, Sara Nayeem, Sujaya Jayathirtha Nilogal, Sanika Samel, Pranav Babu, Sarosh Sayed, Yangchen Li
Faculty: Sonia Singhal
28. **SOMETHING'S FISHY: DNA BARCODING REVEALS MISLABELED SUSHI IN A LOCAL RESTAURANT**  
Student Authors:  
Faculty: Jessica Castillo-Vardaro

29. **IDENTIFICATION OF A POTENTIAL THERAPEUTIC TARGET TO PREVENT CHEMOTHERAPY INDUCED PERIPHERAL NEUROPATHY**  
Student Authors: Hoang-Vi Vu; Jaspinder Grewal; Husna Ibrahimkhail; Giselle Martinez; Martina Reyes; Giancarlo Sponzilli; Sherry Yu Tsai  
Faculty: Katherine A. Wilkinson  
Collaborator: Miriam B. Goodman

30. **DIGITIZING THE ANT COLLECTION OF THE J. GORDON EDWARDS ENTOMOLOGY MUSEUM: MEASURING ANT BIODIVERSITY IN SPACE AND TIME**  
Student Authors: Julian Cortez  
Faculty: Fredrick J. Larabee  
Collaborators: Kaela Federico; Mekhala Sdoeung

Student Authors: Kaycee Aviles; Dimitry Vartan; Duy Bui; Kayla Hong  
Faculty: Fredrick J. Larabee

32. **DETERMINING CHARACTERISTICS OF A NOVEL BACTERIOPHAGE**  
Student authors: Vashaki Lohadas; Akiko Kaitlin Balitactac; Ervin Bose; Edward Rimon Hayek; Karen Cao  
Faculty: Wendy Lee; Robert Fowler; Steven White; Sonia Singhal

33. **GABA MEDIATES A RAPID ESCAPE RESPONSE IN A Caenorhabditis elegans CHEMOSENSORY CIRCUIT**  
Student Authors: Joy Li, Eric Chang, Christopher Vargas, Benjamin Barsi-Rhyne, Jacqueline Pyle, Khristina Magallanes, Zanett Kieu, Sukhdeep Kaur, Sophia Akit, Emily Soohoo, Vanessa Garcia, Maleiyah Harris, Hazel Guillen  
Faculty: Miri VanHoven

34. **OLFACTORY SYNAPSES ARE MODULATED BY ODOR TRAINING AND SLEEP IN Caenorhabditis elegans**  
Student Authors: Fatima Farah, Anirudh Bokka, Kelli Benedetti, Joy Li, Eric Chang, Aruna Varshney, Vanessa Jimenez, Anjana Baradwaj, Cibelle Nassif, Sara Alladin, Kristine Anderson, Veronica Bi, Vanessa Garcia, Kateryna Tokalenko, Emily Soohoo, Fabiola Briseno, Sukhdeep Kaur, Maleiyah Harris, Hazel Guillen, Decklin Byrd, Brandon Fung, Andrew Bykov, Emma Odisho  
Faculty: Miri VanHoven
35. **PNEUMOLYSIN-INDUCES PMN TRANSMIGRATION AND DISRUPTION OF AIRWAY EPITHELIUM INTERCELLULAR JUNCTIONS**
Student Authors: Janessa Caroza, Lizzy Davis, Nicole Homez, Crystal Luong, Gurbir Kaur, Suhanee Zaroo, Wint Mon Mon Kyaw, Ryan Yee, Michelle Quach, Theodore Nguyen, Sophia Malla, James Figueroa, Sienna Fowler, Emily Du, Devons Mo,
Faculty: Walter Adams

36. **COMBINING MECHANICAL PRE-TREATMENT AND PRESCRIBED FIRE TO RESTORE COASTAL PRAIRIE**
Student Authors: Killian Cook, Jannike Allen, David Benterou
Faculty: Kate Wilkin
Collaborators: Jared Childress, Devii Rao

37. **PYRODIVERSITY: PRESCRIBED FIRE INTENSITY AND FUELS CONSUMED IN CALIFORNIA’S MARITIME CHAPARRAL.**
Student authors: Jannike Allen, Xiangyu Ren, Henri Brillon, David Benterou, Killian Cook, Andrew Klofas
Faculty: Bo Yang, Craig Clements, Kate Wilkin

38. **BUILDING PCVS: ELUCIDATING THE ROLE OF COUP-TFII AND ETS IN SEGMENTAL SPECIFICATION**
Student Investigators: Naman Ghaman, Lucas Greven, Kaitlyn Lynch, Kaori McDaniel, Cecelia Nguyen and Talisa Pham
Faculty: Thanh Theresa Dinh
Collaborators: Yuhan Bi, Junliang Pan, Eugene C. Butcher

**Department of Chemistry**

39. **EXPLORING CHIRAL RECOGNITION THROUGH CIRCULARLY POLARIZED LUMINESCENCE SPECTROSCOPY**
Student Authors: Lisette A. Vasquez Perez; Lorena Mont (both presenters)
Faculty: Gilles Muller

40. **DESIGN AND SYNTHESIS OF MACROMOLECULAR RUTHENIUM-BASED CATALYSTS FOR ENHANCED OLEFIN METATHESIS**
Student Authors: Dakota Balcer; Aracely Acosta; Stephanie Velasquez; Mejgon Omar; Tyeshia Sapp
Faculty: Madalyn R. Radlauer

41. **IRIDIUM COMPLEXES + MACROMOLECULAR SUPPORTS: DESIGNED FOR ENHANCED CATALYSIS**
Student Authors: Brenda Mai; Victoria Nguyen; Juancarlos Rojas; Tyeshia Sapp
Faculty: Madalyn R. Radlauer
42. STRUCTURED POLYMERS AS FRAMEWORKS FOR ENZYME-INSPIRED CATALYSIS
Student Authors: Sanjana Sathyanarayanan; Jacob Bryant; José Ramirez; David Santiago; Christopher Swaiss; Melissa Griffin; Kathleen Huynh; Tony Mo
Faculty: Madalyn R. Radlauer

43. DISCOVERING CHEMICAL DETERMINANTS OF P53 AMYLOID FORMATION
Student Authors: Chester Alhambra Jr, Anushree Bhattacharya, Ellena Korisheli
Faculty: Emma Carroll

44. INVESTIGATING THE ROLE OF UBIQUITIN IN AMYLOID FORMATION
Student Authors: Aaron Acevedo, Katherine Martinez, Ann Nguyen, Tiffany Nguyen, Regina Leyva Roman
Faculty: Emma Carroll

45. INVESTIGATING CHEMICAL INDUCERS OF PTEN AMYLOID FORMATION
Student Authors: Tess Kempner, Jennifer Nguyen, Belle Okere, Jay Thompson
Faculty: Emma Carroll

46. QUANTIFYING THE EFFECTS OF PHOSPHORYLATION OF MOTIF A ON ITS BINDING AND ACTIVATION TOWARDS SIRT 1
Student Authors: Ayan Mohamed, Adorina Shahbaze, Patricia Claire Dosayla
Faculty: Ningkun Wang

47. INVESTIGATING THE EFFECT OF THE REMOVAL OF EXON E2 ON SIRT1 ACTIVITY
Student Authors: Natalie Ramirez, Emily Quach, Malvika Kapadia
Faculty: Ningkun Wang

48. OPTIMIZING CHARACTERIZATION OF SWITCH-LIKE REGIONS IN SIRTIUNS
Student Authors: Britney Nguyen; Brooke Bellinghausen; Richard Pearson; Benjamin Strauss
Faculty: Brooke Lustig
Collaborators: Jonathan Oribello

49. EXPLORATION OF H-BOND NETWORKS IN BIV TAR RNA BINDING WT AND MUTANT PEPTIDES
Student Authors: Ethan Suwandi, Brooke Bellinghausen
Faculty: Brooke Lustig

50. LANTHANIDE COORDINATION COMPOUNDS OF THE CHELATING VERDAZYL 1,3-DIPYRIDYL-5-ISOPROPYL-6-OXOVERDAZYL
Student Authors: Guillaume Perrin-Toinin, Anna Buryachenko, Makayla Teppang, Jonathan Lu, Shoug Almutairi, Diego Tavares, Nhu Lai.
Faculty: David J. R. Brook
Collaborators: Ghenadie Novitchi, Cyrille Train

51. CARBORANE SUBSTITUTED STABLE FREE RADICALS
Student Authors: Nick Adams, Nadia Palomeres, Taylor Jackson
Faculty: David R. Brook
52. **BLOCKING QUORUM SENSING IN** *C. subtsugae*
   Student Authors: Natalie Hendrix; Mia Guraydin
   Faculty: Laura Miller Conrad

53. **KINETIC CHARACTERIZATION OF** *P. aeruginosa* ArnA
   Student Authors: Keely White
   Faculty: Laura Miller Conrad

54. **SYNTHESIS OF COLISTIN ANTIBIOTIC ADJUVANTS**
   Student Authors: Kseniya Maiseyeva
   Faculty: Laura Miller Conrad

55. **SPECIATION OF POLYMERS OF GLYOXAL AND METHYLGLYOXAL DURING CLOUD FORMATION: CLIMATE IMPACTS**
   Student Authors: Mateo Johnson; Alejandra Municio; Esmeralda Mendoza Corrales; Kimberly Houghton
   Faculty: Annalise Van Wyngarden

56. **CHEMICAL COMPOSITION OF FILMS FORMED FROM CARBONYL SPECIES UNDER HIGHLY ACIDIC SULFATE AEROSOL CONDITIONS**
   Student Authors: Anureet K. Chahal; Ethan Guidicotti; Rianna Farahani; Sean Colina; Aishwarya Deepak; Kaitlyn Nguyen; Kathy Tong; Thuy Tran; Thomas Nelson
   Faculty: Annalise Van Wyngarden

57. **EXPLORING CHEMICAL ASTROBIOLOGY AT SJSU**
   Student Authors: Janna Gem Aniciete, Carime Martinez, Nourdean Shraim, Jamie Guzman, Lazarus Cobb, Victoria Gladstone, Tara Vaddiraj, Juan Pablo Chavez, Modasser Sheer, Victor Spiessens, Jacob Preston, Ethan Cox, Lorena Mont, Stephen Ball
   Faculty: Andro Rios

58. **DEVELOPING MOLECULAR PLATING CAPABILITIES AT SJSU**
   Student Authors: Laylah Chacon, Brandon Barrios
   Faculty: Nicholas E. Esker
   Collaborators: Matthew Geary

59. **NUCLEAR TARGETRY AT SJSU**
   Student Authors: Allan Ard, Brandon Barrios, Willem Botha, Laylah Chacon, Jo Drapal, Melanie Guerrero, Aiman Hamid, Jacob Huizar, Luca Le, Emily Lin, Simar Randhawa, Phu Vo
   Faculty: Nicholas E. Esker

60. **SYNTHESIS OF WELL-DEFINED POLY(IODOSTYRENE) AND POST-POLYMER MODIFICATION BY SUZUKI CROSS-COUPLING**
   Student Authors: Minh Hoang Huynh
   Faculty: Philip T. Dirlam

61. **METAL-ORGANIC FRAMEWORKS (MOFS) FOR LITHIUM-SULFUR BATTERIES**
   Student Authors: Lamija Kovacevic; Michelle Cao
   Faculty: Philip T. Dirlam
   Collaborators: Monica So; Kathleen Meehan
62. PRELIMINARY INVESTIGATION OF CALIFORNIA NATIVE PLANTS FROM THE ISB GARDEN
Student Authors: Owen Huang, Natalie Kapfenstein, Andrew Lelina, Asia Pham, Nathalie Alfaro, Serena Choo, Cynthia Sibrian, Karen Tam, Tamia Turner,
Faculty: Roy K. Okuda

Department of Computer Sciences

63. HAVING FUN IN LEARNING FOR THE VISUALLY IMPAIRED: ON BLIND ACCESSIBILITY IN EDUCATIONAL VIDEO GAMES
Student Authors: Kengo Kobayashi and Yan Chen
Faculty: Melody Moh and Teng Moh

64. DECODING MALWARE: AN IMAGE VISUALIZATION AND DETECTION STRATEGY.
Student Author: Atharva Khadilkar
Faculty: Mark Stamp

65. DISTINGUISHING CHATBOT FROM HUMAN
Student: Gauri Anil Godghase
Faculty: Mark Stamp

66. ADVERSARIAL ATTACKS ON FEDERATED LEARNING MODELS
Student: Rohit Mapakshi
Faculty: Mark Stamp

67. FAKE REVIEWS DETECTION USING ASPECT BASED SENTIMENT ANALYSIS (ABSA)
Student Author: Prathana Phukon
Faculty: Katerina Potika

68. NEURAL NETWORK-BASED BLOCKING PREDICTION FOR ELASTIC NETWORK SLICING
Student Authors: Manmohanbabu Rupanagudi, Nitin Datta Movva,
Faculty: Genya Ishigaki

69. LEARNING-BASED CACHE MANAGEMENT STRATEGIES IN NAMED DATA NETWORKING
Student Authors: Rachel Liao, Deep Shah, Sai Sameer Yanamandra, Sai Praveen Tatiparthi,
Faculty: Genya Ishigaki

70. SCALING CONTAINER CACHING TO LARGER NETWORKS WITH MULTI-AGENT REINFORCEMENT LEARNING
Student Authors: Austin Chen
Faculty: Genya Ishigaki
71. **MODELING DNA SEQUENCING ARTIFACTS USING DEEP LEARNING**
   Student Authors: David Zhou
   Faculty: Wendy Lee
   Collaborator: Felix Mbuga

72. **DO FRUIT FLIES NEED BPA-FREE WATER BOTTLES, TOO?**
   Student Authors: Hannah Debaets, Aarohi Chopra, Radha Dhaval
   Faculty: Wendy Lee

73. **TFMAST: MULTI-ASPECT SELF-ATTENTION TRANSFORMER WITH LEARNABLE POSITIONAL ENCODING FOR HARD DRIVE FAILURE PREDICTION**
   Student Authors: Rohan Mohapatra
   Faculty: Saptarshi Sengupta
   Collaborators: Austin Coursey

74. **DeSaTE: DENOISING SELF-ATTENTION TRANSFORMER ENCODERS FOR LITHIUM BATTERY HEALTH PROGNOSTICS**
   Student Authors: Gaurav Shinde, Rohan Mohapatra, Pooja Krishan
   Faculty: Saptarshi Sengupta

75. **THE PERFORMANCE OF MACHINE AND DEEP LEARNING ALGORITHMS IN DETECTING FAKE REVIEWS**
   Student Author: Bharkavi Sachithanandam
   Faculty: Faranak Abri, Akbar Siami Namin

76. **ADVERSARIAL ATTACKS AND DEFENSE MECHANISMS IN MULTIVARIATE TIME-SERIES FORECASTING FOR APPLICATIONS IN SMART AND CONNECTED INFRASTRUCTURES**
   Student Authors: Pooja Krishan
   Faculty: Saptarshi Sengupta
   Collaborator: Rohan Mohapatra

77. **OPTIMIZATION OF RIBOSWITCH DESIGN USING PREDICTIVE PLATFORM FOR RNA SECONDARY STRUCTURE AND FREE ENERGY**
   Student Authors: Andrew Townsend, Jonathan Auyong, Kaveesh Passari, Marelyn Negrete
   Faculty: Leila Khatib, William Andreopoulos

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**Department of Geology**

78. **MODELING SEISMIC HAZARD I: EARTHQUAKES & ENERGY**
   Student Authors: Lindsay Gross; Nathan Johnson
   Faculty: Betsy Madden

79. **MODELING SEISMIC HAZARD II: LONG TERM TECTONICS IN THE BAY AREA**
   Student Authors: Bao Tran; Simon Truong
   Faculty: Betsy Madden
80. PHYSICS-BASED, COMPUTER MODELING OF EARTHQUAKES
   Student Authors: Ritwik Patil, Shikha Singh
   Faculty: Betsy Madden

81. GETTING TO THE ROOT OF HYDRAULIC REDISTRIBUTION: MECHANISMS AND MAGNITUDES OF SOIL WATER TRANSFER BY PLANTS
   Student Authors: Arya Parekh, Ali Zahori, Mai Arata
   Faculty: Nathaniel Bogie

82. RELATIVE RATIO OF FORAMINIFERA IN SEDIMENT PUSH CORES FROM THE AXIAL SEAMOUNT UNDERWATER VOLCANO
   Student: Melissa Schott-Atkins
   Faculty: Ryan Portner, Carlie Piestch

83. PREDICTING SEDIMENT AGGRADATION FOLLOWING A SMALL DAM REMOVAL: MILL CREEK, CALIFORNIA, USA
   Student Author: Madeline C. Doyle
   Faculty: Emmanuel Gabet

84. DISCOVER HOMOGENEITY IN THE DATA WITH MISSING VALUES
   Student Author: Brenda Lopez Rodas
   Faculty: Cristina Tortora
   Collaborators: Antonio Punzo

85. CLASSIFY DATA WITH MISSING VALUES
   Student Author: Rajiv Iyengar
   Faculty: Cristina Tortora
   Collaborators: Antonio Punzo

86. A CORRELATION-BASED VARIABLE SELECTION METHOD FOR MIXED-TYPE DATA
   Student Author: Shaam Madhvani
   Faculty: Cristina Tortora
   Collaborators: Antonio Punzo

87. THE CHROMATIC NUMBER OF THE SPHERE GRAPH
   Student Authors: Bennett Haffner, Estephanie Ortiz, Olivia Sanchez
   Faculty: Edgar A. Bering IV

88. CHARACTERIZING THE RESPONSE OF MARINE PRIMARY PRODUCTIVITY TO GREENLAND ICE SHEET MELT
   Student Author: Tara Parker
   Faculty: Mike Wood, Sarah Smith

Department of Mathematics & Statistics

Moss Landing Marine Laboratories
89. **TEMPERATURE-DEPENDENT LASER SCANNING PHOTOLUMINESCENCE MICROSCOPY OF NOVEL MATERIALS**  
   Student Authors: Takuto Ueda, Ayane Gomi, Luke D. S. Randhawa, Hediye Aktas,  
   Faculty: Christopher L. Smallwood

90. **SCANNING INTERFEROMETER AIMED AT CHARACTERIZING LASER COHERENCE LENGTHS**  
   Student Authors: Mariana Rojas-Montoya, Ayane Gomi, Zachary Watkins, Henry B. Wahhab  
   Faculty: Christopher L. Smallwood

91. **ATOMICALLY THIN SEMICONDUCTORS: EXFOLIATION AND IMAGING**  
   Student Authors: Ian Nepomuceno, Logan S. Miller, Brian T. Nguyen, Isaiah K. Solagbade, Brianna Zheng  
   Faculty: Christopher L. Smallwood,  
   Collaborators: Luis Jauregui

92. **QUANTUM STATE ENGINEERING VIA WEAK MEASUREMENT IN THE FERMI-HUBBARD MODEL**  
   Student Authors: Daniel Pilipovic, Aidan Caamaño  
   Faculty: Ehsan Khatami, Hilary M. Hurst

93. **RESEARCH ON EXPERIENCES OF LGBTQ+ PHYSICS-STUDENTS IN CALIFORNIA**  
   Student Authors: Jacob T. Garner  
   Faculty: Brianne Gutmann, Gina M. Quan

94. **TOWARDS REALISTIC INTERPRETATIONS OF QUANTUM GATES**  
   Student Author: Titus Amza  
   Faculty: Ken Wharton

95. **OPTIMIZING TUNABLE QUBIT ARRAYS FOR QUANTUM SIMULATION**  
   Student Authors: Zak Espley  
   Faculty: Hilary M. Hurst

96. **MAPPING OUT GLOBULAR CLUSTERS IN PERSEUS CLUSTER ULTRA-DIFFUSE GALAXIES USING THE SUBARU TELESCOPE**  
   Student Author: Alexi Musick  
   Faculty: Aaron J. Romanowsky  
   Collaborators: Steven R. Janssens; Nobuhiro Okabe; William H. Harris

97. **DESI SPECTRA OF ULTRA-DIFFUSE GALAXIES IN THE COMA CLUSTER**  
   Student Authors: Lailani Kenoly  
   Faculty: Aaron Romanowsky
98. RADIO AND HUBBLE SPACE TELESCOPE OBSERVATIONS OF A CANDIDATE ISOLATED GAS-POOR DWARF GALAXY  
Student Author: Xavier Mendoza-Melendez  
Faculty: Aaron J. Romanowsky  
Collaborators: Betsey Adams; Seppo Laine

99. SEARCHING FOR GLOBULAR CLUSTERS IN DWARF GALAXIES WITH LEGACY AND HUBBLE IMAGING  
Student Authors: Yashraj Bains, Anna Vartan  
Faculty: Aaron Romanowsky

100. ANALYZING A MODEL OF A PULSAR–BLACK HOLE BINARY SYSTEM  
Student Authors: Victoria Gladstone  
Faculty: Curtis T. Asplund

101. PHYSICS INFLUENCE ON NUCLEAR WEAPONS POLICY: 2021 BUDGET PROCESS  
Student Authors: Emily Foreman  
Faculty: Curtis T. Asplund

Acknowledgements

Thanks to all of the student researchers and their faculty mentors and collaborators for displaying the results of their hard work! This is truly an impressive showcase of the broad range of research activity that takes place within our College.

Preparation for SRD19 involved many colleagues from the College. Rob Pascual, Justin Croly and the COS Computer & Network Services printed most of the posters that were displayed today. Setup, teardown, and related aspects involved Lee Veliz, Mike Stephens, Randy Kirchner and Matt Geary, as well as a number of faculty and student volunteers. Kimberly Boudreaux coordinated the T-shirts and refreshments. Robine van Veen prepared the flyer, website, and name tags.

I would like to thank College of Science Dean Michael Kaufman for his support of SRD!

Thanks to Dr. Melody Esfandiari and students of the SJSU Chapter of the Student Affiliates of the American Chemical Society (SAACS) / Chemistry Club for providing refreshments and liquid nitrogen ice cream!

Thanks to everyone who participated and assisted with SRD19!

THANK YOU FOR COMING!