Department of Biological Sciences

1. FINE-SCALE FORAGING MOVEMENTS OF PIGEON GUILLEMOTs *(Cepphus 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

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

19.

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

31. THE MORPHOLOGY OF MUTUALISMS: THREE-DIMENSIONAL SHAPE ANALYSIS OF THE JAWS OF THE MEALYBUG ANT, *Acropyga*
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 Akitt, 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

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 Ru nr(na)-2 Tm0 G[(0)]TJETQq0.97 0 0 rg/GS0 BT/F1 1 Tf0 -1.2 TD[(eW* nBT/F1 1qrmohanbabu R4hanbab0

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 D

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

Department of Physics & Astronomy

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: