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Optomotor Response in *Drosophila melanogaster*

Jacob Bauer, Travis Crump, Matthew Feng, Jocelyn Lin, Alexandra Lynn,
Anna Piepgrass, Divya Rao, Rebecca Stauffer, Bradley Weinberger

Spit Happens: An Analysis of Four Polymorphic Human Genetic Markers by Polymerase Chain Reaction

Irina Faykina, Sheila Krishnan, Amanda Pfaff,
Deepak Rao, Brandy Scalise, Jayaram Srinivasan

Mutagenesis of *Saccharomyces cerevisiae*: Identification and Isolation of Protease-Deficient *pep12*, *pep14*, and *pth1* Mutants

Louis Altamura, Amy Benjamin, Christopher Farrell, Nicholas Fitzkee, Michele
Levin,
Mac Marston, David Naeger, Ami Patel, Mira Sachdeva, Haley Surti

Chemistry

Synthesis and Spectroscopic Analysis of Methyl Orange

Brandon Dammerman, Judd Flesch, Carey Hsu, Albert Lin, Ameesh Vakharia

The Extraction, Isolation, and Characterization of Various Endohedral Buckminsterfullerenes

Abby Galford, Melissa Sia, Nina Singhal, Eric Statz

Synthesis and Characterization of Bromination and Fullerenation Reactions of Buckminsterfullerene, C₆₀

Josette Fedor, Evangelos Kostoulas, Benjamin Milarch,
Mary Ann Seltzer, Shannon Stewman

Computer Science

“Cyberfly”: A Simulation of Optomotor Response in *Drosophila melanogaster*

Megan Goschler, Eric Lee, Jr., Robert Park, Webb Phillips,
Xin Hu, Jessica Wei, James Wiley, Jr.

Fortuitous Amulets: An Investigation of Language Acquisition in Humans and Computers

Naomi J. Graeff, Thomas C. Groff, Garry J. Hallman

Supercomputing - Parallel Algorithms for Multiplexor: An Investigation of Artificial Intelligence and Game Theory

James Gallagher, Matt Huenerfauth, Colin Kimbrell, Latisha Maust, Joshua Miller, Nathan Ramsey, Sue Yoon, Nicholas Yu

PeGaSeSe

Todd Brown, David Kowalski, Joshua Kramer, and Max Perelman

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Three-Dimensional Associative Unital Algebras

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High Energy Particle Radiation at Carnegie Mellon University

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Interfacial Physics: Contact Angles of Surfactant Solutions on a Rain-X Coated Substrate

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Theremin: Music for a Galaxy Far, Far Away...

Nethra Ankam, Lisa Dietrich, Travis Harkness, Adam Hudack, Cynthia Johanson, Carl Riccadonna, Jason Satteson, Maria Sensi, Bethany Weir, Jennifer Whiteside

Appendix

The Students

The Counselors/Teaching Assistants

The Faculty