

## Mitchell J. Feldmann

Robbins Hall Rm#218

1 Shields Ave

Davis, CA 95616

805-807-5376

[mjfeldmann@ucdavis.edu](mailto:mjfeldmann@ucdavis.edu)

[feldmann@plantsciences.ucdavis.edu](mailto:feldmann@plantsciences.ucdavis.edu)

### Research Interests

Quantitative & Population Genetics  
Plant Breeding & Biology  
Theoretical & Applied Statistics  
Computer Vision & Machine Learning

### Research Skills

Programming and scripting using R, Unix, Python, and MATLAB  
Experimental design and statistical analysis  
Image processing and analysis  
Handling/QC of NGS data (GBS)  
Familiarity with existing bioinformatics and genomics tools  
Running and managing jobs on a server or computing cluster  
Basic wet lab skills including DNA/RNA extraction, PCR, and GBS library preparation

### Education

#### University of California, Davis

Ph.D. in Horticulture and Agronomy  
GPA: 3.74  
Advisor: Dr. Steven J. Knapp

Expected June 2019

#### University of Arizona

B.Sc. in Ecology and Evolutionary Biology  
Minor in Mathematics  
GPA: 3.73  
Advisor: Dr. Noah K. Whiteman

Aug 2012-May 2015

### Research Experience

#### Graduate Research Assistant

Strawberry Genetics  
University of California, Davis  
Advisor: Dr. Steven J. Knapp

Sept 2015-Present

#### Undergraduate Research Assistant

Plant-Herbivore Evolution  
University of Arizona  
Advisor: Dr. Noah K. Whiteman

May 2014-Sept 2015

#### Undergraduate Research Assistant

Arabidopsis Genetics  
University of Arizona  
Advisor: Dr. Kenneth A. Feldmann

Aug 2012-Sept 2015

#### Undergraduate Research Assistant

Maize Genetics

Aug 2014

Mitchell Feldmann, Curriculum Vitae

Cornell University  
Advisor: Dr. Michael A. Gore

## Teaching Experience

- Guest Lecturer** Jan 25, 2018  
“*On the Estimation of Variance Components*”  
Quantitative Genetics and Selection Theory (PLS 290)  
University of California, Davis  
Professor: Dr. Steven J. Knapp
- Teaching Assistant** Jan 2017-Apr 2017  
Experimental Design and Analysis (PLS205)  
University of California, Davis  
Professor: Dr. Daniel E. Runcie
- Teaching Assistant** Jan 2018-Apr 2018  
Experimental Design and Analysis (PLS205)  
University of California, Davis  
Professor: Dr. Daniel E. Runcie

## Departmental and Professional Service

- Admissions Committee of the Horticulture and Agronomy Grad Group** Jan 2017-May 2017  
University of California, Davis
- Admissions Committee of the Horticulture and Agronomy Grad Group** Jan 2018-May 2018  
University of California, Davis
- Letters to a Pre-Scientist Participant** Dec 2017-Present
- Plant Sciences Seminar Leader** Sept 2016-Present  
Student Discussions in Plant Sciences (PLS290-008)  
University of California, Davis
- 2016-2017 Elected Horticulture and Agronomy Graduate Group Officer** Sept 2016-Sept 2017  
University of California, Davis
- 2017-2018 Elected Horticulture and Agronomy Graduate Group Officer** Sept 2017-Sept 2018  
University of California, Davis
- 2018 UC Davis Plant Science Symposium Committee President** Sept 2016-Apr 2017  
University of California, Davis
- 2017 UC Davis Plant Science Symposium Committee Member** Sept 2016-Apr 2017  
University of California, Davis
- 2016 UC Davis Plant Breeding Symposium Volunteer** Apr 2016  
University of California, Davis

## Professional Development

- Maricopa NSF Field-Based High Throughput Phenotyping Workshop** Oct 2017  
University of Arizona Maricopa Agricultural Center, Maricopa, AZ
- RNA-seq Library Preparation and Introduction to Data Analysis Workshop** Feb 2017

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UC Davis DNA Tech Core, Davis, CA

**Genome Assembly and Analysis Workshop** Dec 2016  
UC Davis Bioinformatics Core, Davis, CA

**Writing a Dissertation or Thesis** Nov 2016  
University Writing Program, Davis, CA

**Tucson Winter Plant Breeding Institute** Jan 2015  
University of Arizona  
Certificate Received

## Publications

Feldmann MJ, Bridges WC, Knapp SJ. Heritability of a Quantitative Trait Locus. *In prep.*

Gloss AD, Brachi B, **Feldmann MJ**, Groen SC, Bartoli C, Gouzy J, LaPlante ER, Meyer CG, Pyon HS, Rogan SC, Roux F, Bergelson J, Whiteman NK. (2017) Genetic variants affecting plant size and chemical defenses jointly shape herbivory in *Arabidopsis*. *bioRxiv*. bioRxiv 156299; doi: <https://doi.org/10.1101/156299>

## Posters & Presentations

**Feldmann MJ**, Bhartia YV, Newell SA, Harshman JM, Knapp SJ. 2018. Quantitative Methods for Studying Fruit Morphology in Strawberry. PHENOME18. Tucson, AZ, Poster Presentation.

**Feldmann MJ**, Hardigan MA, Poorten TJ, Acharya CB, Colle M, Edger PP, VanBuren R, Knapp SJ. 2018. Genotyping-By-Sequencing and Reference Genome Enabled Variant Discovery in Octoploid Strawberry. Plant and Animal Genome XXVI. San Diego, CA. Poster Presentation.

**Feldmann MJ**, Bridges WC, Knapp SJ. 2017. Heritability of a Quantitative Trait Locus. National Association of Plant Breeders Annual Meeting. Davis, CA. Poster Presentation.

**Feldmann MJ**, Gloss AD, Groen SC, Rogan S, Brachi B, Bergelson J, Whiteman NK. 2015. Identification of genomic regions associated with adult herbivore preference and larval performance in *Arabidopsis thaliana*. University of Arizona EEB Undergraduate Conference. Tucson, AZ. Poster Presentation.

## Awards

UC Davis January 2018 Plant Breeding Center Featured Student (2018)

Henry A. Jastro Graduate Research Award (2017)

NSF Field-Based High Throughput Phenotyping Award (2017)