Event Agenda

2023 Computational Genomics Summer Institute (CGSI)

Wed, Jul 12, 2023

12:45 PM - 1:00 PM   **Retreat Bus Departure**
Location: Entrance, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

4:00 PM - 6:00 PM   **Retreat Hotel Check In**
Location: The Lodge at Big Bear Lake, A Holiday Inn Resort, 40650 Village Dr, Big Bear Lake, CA 92315

6:30 PM - 8:30 PM   **Dinner**
Location: Santana & Mavericks 41072 Big Bear Blvd., Big Bear Lake, CA 92315

Thu, Jul 13, 2023

7:30 AM - 8:30 AM   **Breakfast**
Location: Stillwell Patio, The Lodge at Big Bear Lake, A Holiday Inn Resort, 40650 Village Dr, Big Bear Lake, CA 92315

9:00 AM - 9:30 AM   **Polygenic Means To Test And Refine Depression Disease Models**
Location: Timbers Room, The Lodge at Big Bear Lake, A Holiday Inn Resort, 40650 Village Dr, Big Bear Lake, CA 92315
Speaker: Na Cai

9:30 AM - 10:00 AM   **Genomics of Longitudinal Traits**
Location: Timbers Room, The Lodge at Big Bear Lake, A Holiday Inn Resort, 40650 Village Dr, Big Bear Lake, CA 92315
Speaker: Jessica Dennis

10:00 AM - 10:15 AM   **Break**

10:15 AM - 10:45 AM   **The Functional Architectures of Human Diseases and Complex Traits: From Polygenicity to Variant Function**
Location: Timbers Room, The Lodge at Big Bear Lake, A Holiday Inn Resort, 40650 Village Dr, Big Bear Lake, CA 92315
Speaker: Steven Gazal

10:45 AM - 11:15 AM   **Single-cell Data Integration Using Optimal Transport**
Location: Timbers Room, The Lodge at Big Bear Lake, A Holiday Inn Resort, 40650 Village Dr, Big Bear Lake, CA 92315
Speaker: Ritambhara Singh

11:15 AM - 11:30 AM   **Break**

11:30 AM - 12:00 PM   **Using Neural Architecture Search in Genomics Research**
Location: Timbers Room, The Lodge at Big Bear Lake, A Holiday Inn Resort, 40650 Village Dr, Big Bear Lake, CA 92315
Speaker: Zijun (Frank) Zhang

12:00 PM - 1:00 PM   **Lunch**
Location: Stillwell Patio, The Lodge at Big Bear Lake, A Holiday Inn Resort, 40650 Village Dr, Big Bear Lake, CA 92315

2:00 PM - 5:00 PM   **Hike Castle Rock Trail OR Holiday Inn Pool Party**
Location: Castle Rock Trailhead

6:30 PM - 8:30 PM   **Dinner**
Location: Azteca Mexican Grill 40199 Big Bear Blvd., Big Bear Lake, CA 92315 http://www.aztecabigbear.com

Fri, Jul 14, 2023

7:30 AM - 8:30 AM
Breakfast
Location: Stillwell Patio, The Lodge at Big Bear Lake, A Holiday Inn Resort, 40650 Village Dr, Big Bear Lake, CA 92315

9:00 AM - 9:30 AM
Inferring Parsimonious Migration Histories for Metastatic Cancers
Location: Timbers Room, The Lodge at Big Bear Lake, A Holiday Inn Resort, 40650 Village Dr, Big Bear Lake, CA 92315
Speaker: Mohammed El-Kebir

9:30 AM - 10:00 AM
Knowledge Graph Representation Learning Enabling Biomedical Applications
Location: Timbers Room, The Lodge at Big Bear Lake, A Holiday Inn Resort, 40650 Village Dr, Big Bear Lake, CA 92315
Speaker: Wei Wang

10:00 AM - 10:15 AM
Break

10:15 AM - 10:45 AM
Computationally Scalable Approaches for Characterizing Genetic Architectures in Diverse Ancestries
Location: Timbers Room, The Lodge at Big Bear Lake, A Holiday Inn Resort, 40650 Village Dr, Big Bear Lake, CA 92315
Speaker: Nicholas Mancuso

10:45 AM - 11:15 AM
Models and Methods for Reconstructing Species-level Evolutionary Trees and Relationships to Tumor Phylogenetics
Location: Timbers Room, The Lodge at Big Bear Lake, A Holiday Inn Resort, 40650 Village Dr, Big Bear Lake, CA 92315
Speaker: Erin Molloy

11:15 AM - 11:30 AM
Break

11:30 AM - 12:00 PM
Selective Inference for Computational Genomics
Location: Timbers Room, The Lodge at Big Bear Lake, A Holiday Inn Resort, 40650 Village Dr, Big Bear Lake, CA 92315
Speaker: Kris Sankaran

12:00 PM - 1:00 PM
Lunch
Location: Stillwell Patio, The Lodge at Big Bear Lake, A Holiday Inn Resort, 40650 Village Dr, Big Bear Lake, CA 92315

2:00 PM - 5:00 PM
Soccer, Corn Hole, and other games
Location: Meadow Park, 41220 Park Ave, Big Bear Lake, CA 92315

6:30 PM - 8:30 PM
Dinner
Location: Village Sports Bar, 40789 Village Dr., Big Bear Lake, CA 92315

Sat, Jul 15, 2023

7:30 AM - 8:30 AM
Breakfast
Location: Stillwell Patio, The Lodge at Big Bear Lake, A Holiday Inn Resort, 40650 Village Dr, Big Bear Lake, CA 92315

9:00 AM - 9:30 AM
Manifold Learning for Visualizing Genomic Data
Location: Timbers Room, The Lodge at Big Bear Lake, A Holiday Inn Resort, 40650 Village Dr, Big Bear Lake, CA 92315
Speaker: Jaehee Kim

9:30 AM - 10:00 AM
Genome-wide Prediction of Disease Variants with a Deep Protein Language Model
Location: Timbers Room, The Lodge at Big Bear Lake, A Holiday Inn Resort, 40650 Village Dr, Big Bear Lake, CA 92315
Speaker: Vasilis Ntranos

10:00 AM - 10:15 AM
Break

10:15 AM - 10:45 AM   **Tumor Evolution: Methods for Comparing, Summarizing and Visualizing Clonal Trees**
Location: Timbers Room, The Lodge at Big Bear Lake, A Holiday Inn Resort, 40650 Village Dr, Big Bear Lake, CA 92315
Speaker: Layla Oesper

10:45 AM - 11:15 AM   **Computational Simulations and Machine Learning in Population Genetics Using an Example in Adaptive Introgression Inference**
Location: Timbers Room, The Lodge at Big Bear Lake, A Holiday Inn Resort, 40650 Village Dr, Big Bear Lake, CA 92315
Speaker: Xinjun Zhang

11:15 AM - 11:30 AM   **Break**

11:30 AM - 12:00 PM   **Uncertainty Estimation in Machine Learning via Conformal Inference**
Location: Timbers Room, The Lodge at Big Bear Lake, A Holiday Inn Resort, 40650 Village Dr, Big Bear Lake, CA 92315
Speaker: Matteo Sesia

12:00 PM - 1:00 PM   **Lunch On Your Own**

1:00 PM - 1:30 PM   **Bus Departure**
Location: The Lodge at Big Bear Lake, A Holiday Inn Resort, 40650 Village Dr, Big Bear Lake, CA 92315

2:00 PM - 4:00 PM   **Fraternity House Check In -- Long Program Housing**
Location: Phi Kappa Psi, 613 Gayley Ave, Los Angeles, CA 90024

Sun, Jul 16, 2023

4:00 PM - 6:00 PM   **Dormitory Check In -- Short Program Housing**
Location: UCLA De Neve Plaza, 351 Charles E Young Dr West, Los Angeles, CA 90095

Mon, Jul 17, 2023

8:00 AM - 9:00 AM   **Registration and Breakfast**
Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

9:00 AM - 9:15 AM   **Introduction & Welcome**
Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

9:15 AM - 10:00 AM   **Modeling Spatial Omics and Cellular Niches with Graph Neural Networks**
Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
Speaker: James Zou

10:00 AM - 10:45 AM   **Selecting Between-sample ChIP-Seq Normalization Methods From The Perspective of Their Assumptions**
Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
Speaker: Jo Hardin

10:45 AM - 11:15 AM   **Coffee Break**
Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

11:15 AM - 11:30 AM   **Popgen/Statgen Workshop Daily Orientation**
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

11:15 AM - 11:30 AM   **Genomic Tech Workshop Daily Orientation**
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

11:15 AM - 11:30 AM   **Methods Workshop Daily Orientation**
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

11:30 AM - 12:00 PM   **Popgen/Statgen Faculty Talk: Population Genetics in Large Genealogies**
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
Speaker: Simon Gravel

11:30 AM - 12:00 PM   **Genomic Tech Faculty Talk: Hierarchical Models for Deep Mutational Scans: "big" but actually small data**
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
Speaker: Harold Pimentel

11:30 AM - 12:00 PM   **Methods Faculty Talk: Multiple Testing: Methods for Low- and High-Dimensional Testing Problems in Biomed, and Some Optimality Results**
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
Speaker: Saharon Rosset

12:00 PM - 1:30 PM   **Lunch On Your Own**

1:30 PM - 2:00 PM   **Popgen/Statgen Workshop Interactive Time**
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

1:30 PM - 2:00 PM   **Genomic Tech Workshop Interactive Time**
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

1:30 PM - 2:00 PM   **Methods Workshop Interactive Time**
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

2:00 PM - 2:30 PM   **Coffee Break**
Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

2:30 PM - 3:00 PM   **Popgen/Statgen Faculty Talk: Detection of Hard and Soft Sweeps from Population Genomic Data**
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
Speaker: Nandita Garud

2:30 PM - 3:00 PM   **Genomic Tech Faculty Talk: Statistical Methods for Mapping of Context-dependent Regulatory Variants Using scRNA-seq Data**
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
Speaker: Brunilda Balliu

2:30 PM - 3:00 PM   **Methods Faculty Talk: Evolutionary Models for Cancer and Lineage Tracing**
Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
Speaker: Ben Raphael

3:00 PM - 3:30 PM   **Popgen/Statgen Faculty Talk : Population Genetics Methods for Forensic DNA Identification**
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
Speaker: Jaehee Kim

3:00 PM - 3:30 PM   **Genomic Tech Faculty Talk: Single-cell Data Integration Using Optimal Transport**
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
Speaker: Ritambhara Singh

3:00 PM - 3:30 PM   **Methods Faculty Talk: Controlling False Discoveries in Genomics Data Analysis: What is the Null Hypothesis?**
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
Speaker: Jingyi (Jessica) Li

3:30 PM - 4:00 PM   **Coffee Break**
Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

4:00 PM - 4:45 PM   **Living in the Future of Genomics**
Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
Speaker: Rayan Chikhi

5:00 PM - 6:30 PM   **Opening Reception**
Location: Luskin Conference Center, Courtyard South

Tue, Jul 18, 2023

8:30 AM - 9:15 AM

Breakfast
Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

9:15 AM - 10:00 AM

Statistical Reference-free Genomics Solves Myriad Problems in Bioinformatics
Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
Speaker: Julia Salzman

10:00 AM - 10:45 AM

Models and Methods for Spatial Transcriptomics
Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
Speaker: Ben Raphael

10:45 AM - 11:15 AM

Coffee Break
Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

11:15 AM - 11:30 AM

Popgen/Statgen Workshop Daily Orientation
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

11:15 AM - 11:30 AM

Genomic Tech Workshop Daily Orientation
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

11:15 AM - 11:30 AM

Methods Workshop Daily Orientation
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

11:30 AM - 12:00 PM

Popgen/Statgen Faculty Talk: Inference from Single Cell Lineage Tracing Data Generated via Genome Editing
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
Speaker: Julia Palacios

11:30 AM - 12:00 PM

Leveraging High-throughput Functional Characterization Data to Dissect and Annotate Human Regulatory Regions
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
Speaker: Jason Ernst

11:30 AM - 12:00 PM

Methods Faculty Talk: mDBG and alignment: The tumultuous fate of sequence bioinformatics ideas
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
Speaker: Rayan Chikhi

12:00 PM - 1:30 PM

Lunch On Your Own

1:30 PM - 2:00 PM

Popgen/Statgen Workshop Interactive Time
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

1:30 PM - 2:00 PM

Genomic Tech Workshop Interactive Time
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

1:30 PM - 2:00 PM

Methods Faculty Talk: Machine Learning via Graph Signal for Complex Biological Data
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
Speaker: Smita Krishnaswamy

2:00 PM - 2:30 PM

Coffee Break
Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

2:30 PM - 3:00 PM

Popgen/Statgen Workshop: Poster Session
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

2:30 PM - 3:00 PM

Genomic Tech Faculty Talk: Graph and Algebraic Signal Processing Basics for Computational Biology
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
Speaker: Smita Krishnaswamy

2:30 PM - 3:00 PM	**Methods Faculty Talk: Clinical Event Extraction**
	Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Nanyun (Violet) Peng

3:00 PM - 3:30 PM	**Popgen/Statgen Faculty Talk: Epigenetic Sequencing of Cell-free DNA for Biomarkers of Degenerative Disease.**
	Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Noah Zaitlen

3:00 PM - 3:30 PM	**Genomic Tech Faculty Talk: Genotyping Allele-specific Copy Number Variants Using Pangenomes**
	Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Mark Chaisson

3:00 PM - 3:30 PM	**Methods Faculty Talk: Leveraging Medical Twitter to Build a Visual-language AI Model for Pathology**
	Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: James Zou

| 3:30 PM - 4:00 PM | **Coffee Break** |
| | Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095 |

4:00 PM - 4:45 PM	**Faculty Talk: Statistical and Computational Challenges in the Analysis of Biobank-scale Data**
	Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Sriram Sankararaman

| 6:00 PM - 8:00 PM | **Santa Monica Beach Picnic & Games** |
| | Location: Near Annenberg Beach House, 415 Pacific Coast Hwy, Santa Monica, CA 90402 |

Wed, Jul 19, 2023

| 8:30 AM - 9:15 AM | **Breakfast** |
| | Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095 |

9:15 AM - 10:00 AM	**Intuition and Paradoxes in Probability and Statistics**
	Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Saharon Rosset

10:00 AM - 10:45 AM	**SwabSeq: Sequencing-based Detection of Pathogens**
	Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Eleazar Eskin

| 10:45 AM - 11:15 AM | **Coffee Break** |
| | Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095 |

11:15 AM - 12:00 PM	**Why is this so hard? It should be easy...**
	Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Casey Greene

12:00 PM - 12:45 PM	**Machine Learning Models for Single Cell and Regulatory Genomics**
	Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Christina Leslie

| 12:45 PM - 2:00 PM | **Lunch On Your Own** |

| 2:00 PM - 6:00 PM | **Self-Guided Hollywood Tour (In Small Groups)** |

| 6:00 PM - 7:30 PM | **Hollywood Bowl Picnic** |
| | Location: Picnic Area 14, Hollywood Bowl, 2101 N Highland Ave, Los Angeles, CA 90068 |

| 8:00 PM - 10:00 PM | **Hollywood Bowl Concert: Diana Krall** |
| | Location: Hollywood Bowl, 2301 N Highland Ave, Los Angeles, CA 90068 |

Thu, Jul 20, 2023

8:30 AM - 9:15 AM **Breakfast**
Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

9:15 AM - 10:00 AM **Large Language Models for Computational Biology: A Primer**
Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
Speaker: Jian Ma

10:00 AM - 10:45 AM **From Mutagenic Processes to Mutational Signatures and Back**
Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
Speaker: Teresa Przytycka

10:45 AM - 11:15 AM **Coffee Break**
Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

11:15 AM - 11:30 AM **Popgen/Statgen Workshop Daily Orientation**
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

11:15 AM - 11:30 AM **Genomic Tech Workshop Daily Orientation**
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

11:15 AM - 11:30 AM **Methods Workshop Daily Orientation**
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

11:30 AM - 12:00 PM **Popgen/Statgen Faculty Talk : Generating Realistic Chromosome-Scale Simulations for Population Genomics Studies**
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
Speaker: Ilan Gronau

11:30 AM - 12:00 PM **Genomic Tech Faculty Talk : Computational Insights into Cancer Immunology**
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
Speaker: Aly Azeem Khan

11:30 AM - 12:00 PM **Methods Faculty Talk : Acceleration of Read Mapping Through Hardware/Algorithm Co-Design**
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
Speaker: Can Alkan

12:00 PM - 1:30 PM **Lunch On Your Own**

1:30 PM - 2:00 PM **Popgen/Statgen Workshop Interactive Time**
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

1:30 PM - 2:00 PM **Genomic Tech Workshop Poster Session**
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

1:30 PM - 2:00 PM **Methods Workshop Poster Session**
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

2:00 PM - 2:30 PM **Coffee Break**
Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

2:30 PM - 3:00 PM **Popgen/Statgen Workshop Interactive Time**
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

2:30 PM - 3:00 PM **Genomic Tech Workshop Interactive Time**
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

2:30 PM - 3:00 PM **Methods Workshop Interactive Time**
Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

3:00 PM - 3:30 PM	**Popgen/Statgen Faculty Talk: Optimizing Data Structures and Algorithms for Algebraic Computations on Large-Scale Population Genetic Data**
	Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: April Wei

3:00 PM - 3:30 PM	**Genomic Tech Faculty Talk : BART: A Transcriptional Regulator Prediction Method for Functional Genomics**
	Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Chongzhi Zang

3:00 PM - 3:30 PM	**Methods Faculty Talk : Outbreaks, Metastases and Homomorphisms: Inference of Transmissions and Migrations Under Structural Constraints**
	Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Pavel Skums

| 3:30 PM - 4:00 PM | **Coffee Break** |
| | Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095 |

4:00 PM - 4:45 PM	**Inferring Genome-wide Phylogenetic Trees with Hundreds of Thousands of Genomes**
	Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Siavash Mirarab

| 6:00 PM - 9:00 PM | **Hammer Museum Concert** |
| | Location: UCLA Hammer Museum, 10899 Wilshire Blvd, Los Angeles, CA 90024 |

Fri, Jul 21, 2023

| 8:30 AM - 9:15 AM | **Breakfast** |
| | Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095 |

9:15 AM - 10:00 AM	**How to "Squeeze" the Best Genome Assembly From Your HiFi Reads**
	Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Stefano Lonardi

10:00 AM - 10:45 AM	**Advances in Large-scale Multiple Sequence Alignment**
	Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Tandy Warnow

| 10:45 AM - 11:15 AM | **Coffee Break** |
| | Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095 |

11:15 AM - 12:00 PM	**Faculty Talk: Independence Tests and Dependence Measures, for Unbiased and Biased Samples**
	Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Or Zuk

| 12:00 PM - 1:30 PM | **Lunch On Your Own** |

| 1:30 PM - 2:15 PM | **Popgen/Statgen Workshop Interactive Time** |
| | Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095 |

| 1:30 PM - 2:15 PM | **Genomic Tech Workshop Interactive Time** |
| | Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095 |

| 1:30 PM - 2:15 PM | **Methods Workshop Interactive Time** |
| | Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095 |

| 2:15 PM - 2:45 PM | **Coffee Break** |
| | Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095 |

2:45 PM - 3:30 PM	**Computational Methods for Modeling and Analyzing Epigenomic Data**
	Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Jason Ernst

3:30 PM - 4:00 PM	**Coffee Break**
	Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

4:00 PM - 4:45 PM	**Design, Construction, and Usage of the Draft Pangenome**
	Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Mark Chaisson

5:00 PM - 6:30 PM	**Closing Reception**
	Location: First Floor Patio, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

Sat, Jul 22, 2023

Sun, Jul 23, 2023

Mon, Jul 24, 2023

8:30 AM - 9:15 AM	**Breakfast**
	Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

9:15 AM - 10:00 AM	**Statistical Methods for Cancer Risk Prediction Models**
	Location: Cohen Room, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Wenyi Wang

10:00 AM - 10:45 AM	**MM Principle of Optimization**
	Location: Cohen Room, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Kenneth Lange

10:45 AM - 11:15 AM	**Coffee Break**
	Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

11:15 AM - 12:00 PM	**Participant Presentations**
	Location: Cohen Room, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Various Speakers

12:00 PM - 1:00 PM	**Lunch On Your Own**

Tue, Jul 25, 2023

8:30 AM - 9:15 AM	**Breakfast**
	Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

9:15 AM - 10:00 AM	**Harnessing Genome Dynamics for Phylogenetic Reconstruction**
	Location: Cohen Room, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Sagi Snir

10:00 AM - 10:45 AM	**Eliciting Effective Machine Learning Algorithms via Majorization-Minimization**
	Location: Cohen Room, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Jason Xu

10:45 AM - 11:15 AM	**Coffee Break**
	Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

11:15 AM - 12:00 PM	**Participant Presentations**
	Location: Cohen Room, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Various Speakers

12:00 PM - 1:00 PM	**Lunch On Your Own**

| 6:00 PM - 8:00 PM | **Dinner** |
| | Location: The Curious Palate, 395 Santa Monica Place (Third Floor), Santa Monica, CA 90401 |

Wed, Jul 26, 2023

| 8:00 PM - 8:00 PM | **Day Off -- No Events Planned** |

Thu, Jul 27, 2023

| 8:30 AM - 9:15 AM | **Breakfast** |
| | Location: Second Floor Patio, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095 |

9:15 AM - 10:00 AM	**Characterization of Genomic Structural Variation Using Various Sequencing Technologies**
	Location: Cohen Room, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Can Alkan

10:00 AM - 10:45 AM	**Computational Biomedicine: Epigenetics Liquid Biopsy and Alternative Polyadenylation Therapy**
	Location: Cohen Room, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Wei Li

| 10:45 AM - 11:15 AM | **Coffee Break** |
| | Location: Second Floor Patio, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095 |

11:15 AM - 12:00 PM	**Participant Presentations**
	Location: Cohen Room, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Various Speakers

| 12:00 PM - 1:00 PM | **Lunch On Your Own** |

| 6:00 PM - 8:00 PM | **Dinner** |
| | Location: 2720 Main Street Santa Monica, CA 90405 |

Fri, Jul 28, 2023

| 8:30 AM - 9:15 AM | **Breakfast** |
| | Location: Second Floor Patio, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095 |

9:15 AM - 10:00 AM	**Computational Analysis of Liver Whole-slide Images Empowers Genomic Analyses of Histological Traits**
	Location: Cohen Room, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Francesco Paolo Casale

10:00 AM - 10:45 AM	**Recent Advances in Normalizing Flows**
	Location: Cohen Room, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Christoph Lippert

| 10:45 AM - 11:15 AM | **Coffee Break** |
| | Location: Second Floor Patio, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095 |

11:15 AM - 12:00 PM	**Participant Presentations**
	Location: Cohen Room, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Various Speakers

| 12:00 PM - 1:00 PM | **Lunch On Your Own** |

Sat, Jul 29, 2023

Sun, Jul 30, 2023

Mon, Jul 31, 2023

8:00 AM - 9:00 AM　　**Registration and Breakfast**
Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

9:00 AM - 9:15 AM　　**Introduction -- CGSI Organizing Committee**
Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

9:15 AM - 10:00 AM　　**From Population to Person: How to Help a Single, Actual Person with Data Science**
Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
Speaker: Lisa Bastarache

10:00 AM - 10:45 AM　　**Revisiting Out of Distribution Generalization**
Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
Speaker: Rajesh Ranganath

10:45 AM - 11:15 AM　　**Coffee Break**
Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

11:15 AM - 11:30 AM　　**Biobanks Workshop Daily Orientation**
Location: Cohen Room, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

11:15 AM - 11:30 AM　　**ML in Health Workshop Daily Orientation**
Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

11:30 AM - 12:00 PM　　**Biobanks Faculty Talk : Confounding sneaks into biobanks in myriad ways…**
Location: Cohen Room, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
Speaker: Nancy Cox

11:30 AM - 12:00 PM　　**ML in Health Faculty Talk: Training Highly Generalizable Biomedical Image Segmentation Models with Very Few Annotations**
Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
Speaker: Pengtao Xie

12:00 PM - 1:30 PM　　**Lunch On Your Own**

1:30 PM - 2:00 PM　　**Biobanks Workshop Interactive Time**
Location: Cohen Room, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

1:30 PM - 2:00 PM　　**ML in Health Workshop Interactive Time**
Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

2:00 PM - 2:30 PM　　**Coffee Break**
Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

2:30 PM - 3:00 PM　　**Biobanks Faculty Talk : Statistical and Computational Challenges in the Analysis of Biobank-scale Data**
Location: Cohen Room, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
Speaker: Sriram Sankararaman

2:30 PM - 3:00 PM　　**ML in Health Faculty Talk : Fairness and Equity in Machine Learning for Healthcare**
Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
Speaker: Irene Chen

3:00 PM - 3:30 PM　　**Biobanks Faculty Talk : Computationally Scalable Approaches for Characterizing Genetic Architectures in Diverse Ancestries**
Location: Cohen Room, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
Speaker: Nicholas Mancuso

3:00 PM - 3:30 PM	**ML in Health Faculty Talk : Strategies for Integrating Deep Learning with Current Biomedical Research** Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095 Speaker: Jeffrey Chiang
3:30 PM - 4:00 PM	**Coffee Break** Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
4:00 PM - 4:45 PM	**Methods for Disease Analysis Using Multiomic Data** Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095 Speaker: Ron Shamir
5:00 PM - 6:30 PM	**Opening Reception** Location: UCLA Botanical Gardens, 707 Tiverton Dr, Los Angeles, CA 90095

Tue, Aug 01, 2023

8:30 AM - 9:15 AM	**Breakfast** Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
9:15 AM - 10:00 AM	**Cause and Consequence of Within-Family Genetic Variation** Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095 Speaker: Peter Visscher
10:00 AM - 10:45 AM	**New Approaches to Phenotype Imputation and Causal Inference in Biobanks** Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095 Speaker: Sriram Sankararaman
10:45 AM - 11:15 AM	**Coffee Break** Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
11:15 AM - 11:30 AM	**Biobanks Workshop Daily Orientation** Location: Cohen Room, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
11:15 AM - 11:30 AM	**ML in Health Workshop Daily Orientation** Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
11:30 AM - 12:00 PM	**Biobanks Faculty Talk : Combining Biobanks and Cohort Studies: The Best of Both Worlds? The Case of Severe Mental Illness** Location: Cohen Room, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095 Speaker: Loes Olde Loohuis
11:30 AM - 12:00 PM	**ML in Health Faculty Talk: Deep Generative Models in Medicine** Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095 Speaker: Rajesh Ranganath
12:00 PM - 1:30 PM	**Lunch On Your Own**
1:30 PM - 2:00 PM	**Biobanks Workshop Interactive Time** Location: Cohen Room, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
1:30 PM - 2:00 PM	**ML in Health Workshop Interactive Time** Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
2:00 PM - 2:30 PM	**Coffee Break** Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
2:30 PM - 3:00 PM	**Biobanks Workshop Poster Session** Location: Cohen Room, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095

2:30 PM - 3:00 PM	**ML in Health Workshop: Observational Causal Inference for Improving and Auditing ML for Healthcare**
	Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Shalmali Joshi
3:00 PM - 3:30 PM	**Biobanks Faculty Talk : Mixed Models in Genomic Analyses and Imaging Studies**
	Location: Cohen Room, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Francesco Paolo Casale
3:00 PM - 3:30 PM	**ML in Health Faculty Talk: Reliable Machine Learning in Healthcare - Handling Dependent Censorship in Survival Analysis**
	Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Rahul Krishnan
3:30 PM - 4:00 PM	**Coffee Break**
	Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
4:00 PM - 4:45 PM	**Bringing Machine Learning into Clinical Practice**
	Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Julia Vogt
6:00 PM - 8:00 PM	**Santa Monica Beach Picnic & Games**
	Location: Near Annenberg Beach House, 415 Pacific Coast Hwy, Santa Monica, CA 90402

Wed, Aug 02, 2023

8:30 AM - 9:15 AM	**Breakfast**
	Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
9:15 AM - 10:00 AM	**Detection of Assortative Mating Using Polygenic Scores**
	Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Loic Yengo
10:00 AM - 10:45 AM	**Applications of Deep Learning in Digital Pathology and Embryology**
	Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Iman Hajirasouliha
10:45 AM - 11:15 AM	**Coffee Break**
	Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
11:15 AM - 12:00 PM	**Performing GWAS of Images by Combining Deep Transfer Learning with Statistical Testing**
	Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Christoph Lippert
12:00 PM - 12:45 PM	**Ways to Find Confounding in Biobanks**
	Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Nancy Cox
12:45 PM - 2:00 PM	**Lunch On Your Own**
3:00 PM - 7:00 PM	**Temescal Gateway Park Hike/Picnic**
	Location: Temescal Gateway Park, 15601 Sunset Blvd, Pacific Palisades, CA 90272

Thu, Aug 03, 2023

8:30 AM - 9:15 AM	**Breakfast**
	Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
9:15 AM - 10:00 AM	**Less is More: Learning Signals to Learn Representations in Healthcare**
	Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Sumit Chopra

10:00 AM - 10:45 AM	**Automated Quantitative Trait Locus Analysis**
	Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Jason Moore

| 10:45 AM - 11:15 AM | **Coffee Break** |
| | Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095 |

| 11:15 AM - 11:30 AM | **Biobanks Workshop Daily Orientation** |
| | Location: Cohen Room, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095 |

| 11:15 AM - 11:30 AM | **ML in Health Workshop Daily Orientation** |
| | Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095 |

11:30 AM - 12:00 PM	**Biobanks Faculty Talk: Fun with Phecodes!**
	Location: Cohen Room, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Lisa Bastarache

11:30 AM - 12:00 PM	**ML in Health Faculty Talk : Understanding Spurious Feature Learning Through the Lens of Task Difficulty**
	Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Kayhan Batmanghelich

| 12:00 PM - 1:30 PM | **Lunch On Your Own** |

1:30 PM - 2:00 PM	**Biobanks Faculty Talk: Predicting the Epigenome from DNA Sequence, Are you there yet?**
	Location: Cohen Room, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Haky (Hae Kyung) Im

| 1:30 PM - 2:00 PM | **ML in Health Workshop Poster Session** |
| | Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095 |

| 2:00 PM - 2:30 PM | **Coffee Break** |
| | Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095 |

2:30 PM - 3:00 PM	**Biobanks Faculty Talk: Still-Missing Heritability: A Tale of Two Traits**
	Location: Cohen Room, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Peter Visscher

| 2:30 PM - 3:00 PM | **ML in Health Workshop Interactive Time** |
| | Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095 |

| 3:00 PM - 3:30 PM | **ML in Health Workshop Interactive Time** |
| | Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095 |

| 3:00 PM - 3:30 PM | **ML in Health Workshop Free Time** |
| | Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095 |

| 3:30 PM - 4:00 PM | **Coffee Break** |
| | Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095 |

4:00 PM - 4:45 PM	**Familywise Error Rate Control for Statistical Testing in Brain Image Ontologies**
	Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
	Speaker: Daniel Tward

| 6:30 PM - 10:00 PM | **Skirball Museum exhibit and Sunset Concert. Performance by AvevA.** |
| | Location: Skirball Cultural Center, 2701 N Sepulveda Blvd, Los Angeles, CA 90049 |

Fri, Aug 04, 2023

| 8:30 AM - 9:15 AM | **Breakfast** |
| | Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095 |

9:15 AM - 10:00 AM	**Dissecting the Contribution of the Repeat-ome to Complex Traits** Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095 Speaker: Melissa Gymrek
10:00 AM - 10:45 AM	**Multi-modality Medical Image Analysis using Machine Learning** Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095 Speaker: Corey Arnold
10:45 AM - 11:15 AM	**Coffee Break** Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
11:15 AM - 12:00 PM	**Divide and Conquer: Carving Out Symbolic Models out of BlackBox for More Efficient Domain Adaptation** Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095 Speaker: Kayhan Batmanghelich
12:00 PM - 1:30 PM	**Lunch On Your Own**
1:30 PM - 2:15 PM	**Biobanks Workshop Interactive Time** Location: Various Locations, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
1:30 PM - 2:15 PM	**ML in Health Workshop Interactive Time** Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
2:15 PM - 2:45 PM	**Coffee Break** Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
2:45 PM - 3:30 PM	**Biobanks from a Pathologist's Viewpoint** Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095 Speaker: Valerie Arboleda
3:30 PM - 4:00 PM	**Coffee Break** Location: First Floor, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095
4:00 PM - 4:45 PM	**CGSI Program Summary** Location: Mong Auditorium, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095 Speaker: Various Speakers
5:00 PM - 6:00 PM	**Closing Reception** Location: First Floor Patio, Engineering VI, 404 Westwood Plaza, Los Angeles, CA 90095