



2018 NRT-IAS Annual Conference and Training Workshop

Begins: 9AM Monday, March 26th

Ends: 4PM Tuesday, March 27th

Name of Resort: Chaminade Resort & Spa

Address: 1 Chaminade Lane, Santa Cruz, CA 95065

Meeting Agenda

Sunday March 25th

Arrival (late afternoon)

Dinner on your own

Monday March 26th

8:00 - 9:00 AM Breakfast (Open from 7AM. Sunset Restaurant)

9:00 - 9:30 AM Introductions (Main Meeting Room: New Brighton)

9:30 - 11:00 AM Session1 (Room: New Brighton)

9:30 - 10:00 AM Team 1

Daniel Schloesser (CIS), Derek Hollenbeck (ME), Taran Rallings (QSB)

Faculty facilitators: Kello, Chen

10:00 - 10:30 AM Team 2

Jonathan Anzules (QSB) & Ayme Tomson (CIS)*.

Jonathan will present on behalf of the team.

Faculty facilitators: Sindi, Matlock

10:30 - 11:00 AM Team 3

Thomas Thayer (EECS), Adolfo Ramirez-Aristizabal (CIS), Imtiaz Ali

(Phys)* *Faculty facilitators: Carpin/Kello/Gopinathan*

**will not be present*



11:00 - 11:30 AM Team 4

Jordan Ackerman (CIS), Bhriku Adlakha (EECS), Amin Boroomand (QSB)
Faculty facilitators: Singhal, Noelle

12:00 - 1:30 PM LUNCH (Sunset Restaurant)

1:30 - 3:00 PM Session 2 (Room: New Brighton)

1:30 - 2:00 PM Team 5

Lesly Lopez (QSB), Jordan Collignon (Math)
Faculty facilitators: McTavish

2:00 - 2:30 PM Team 6

Shayna Bennett (AM), Ketika Garg (CIS)
Faculty facilitators: Kello

2:30 - 3:00 PM Team 7

Tyrome Sweet (QSB), Ben Falandays (CIS), Jose Alcala (ME)
Faculty facilitators: Chen, Spivey

3:00 - 3:30 PM Summary

3:30 - 4:00 PM Break (Seacliff Lounge & Terrace)

4:00 - 5:30 PM Keynote Lecture (Room: New Brighton)

Dr. Deborah Gordon, Department of Biology, Stanford University.
Title: *The Ecology of Collective Behavior*

5:30 - 6:30 PM Dinner served at 6:00 PM (Sunset Restaurant)

6:30 PM onwards: Self-organized hikes, beach walks.

Evening plans: Group discussions.

Individuals are responsible for all alcoholic beverage purchases.



Tuesday March 27th

8:00 – 9:00 AM Breakfast (open from 7am. Sunset Restaurant)

9:00 - 11:00 AM Brainstorm session (New Brighton)

Teams will meet with their advisors/facilitators and come up with a continued research plan

11:00 - 11:30 AM Summary of break out session.

12:00 - 1:30 PM Lunch (Sunset Restaurant)

1:30 - 3:00 PM (Room: New Brighton)

Open discussion with all groups.

3:00 PM onwards: You are free to explore Santa Cruz and continue the discussions informally.



Student participants

- 1. Taran Rallings, QSB (Advisor: Justin Yeakel)**
 - Food Web Ecology and Paleontology
 - Modeling
 - Machine learning

- 2. Daniel Schloesser, CIS (Advisor: Chris Kello)**
 - Coordination between Individuals
 - Perception & Action
 - Complex Systems

- 3. Bhrigu Adlakha, EECS (Advisor: Mukesh Singhal)**
 - Machine Learning, Distributed Computing
 - Deep Learning and Predicting Human Behavior

- 4. Jonathan Anzules, QSB (Advisor: Suzanne Sindi)**
 - Bioinformatics
 - Machine Learning, Big Data

- 5. Thomas Thayer, EECS (Advisor: Stefano Carpin)**
 - Robotics, Strong AI, Bridging Gap between Physical and Digital Worlds
 - Human Robot Interaction, Bridge to Cognitive Science

- 6. Derek Hollenbeck, ME (Advisor: YangQuan Chen)**
 - Cyber-Physical-Systems, and Machine Learning
 - Fractional Calculus
 - Search & Localization of Fugitive Gases
 - Unmanned Aerial Systems

- 7. Adolfo Ramirez-Aristizabal, CIS (Advisor: Chris Kello)**
 - Complexity Matching
 - Music, Speech, Rhythm, Temporal Structure
 - Data Analytics

- 8. Jordan Ackerman, CIS (Advisor: Stephanie Shih)**
 - Natural Language Processing, BigData, App Development
 - Rhyming and Battle Rap
 - Dialog systems, Education Systems, Memory/Visualization, Games

- 9. Amin Boroomand, QSB (Advisor: Paul Smaldino)**
 - Mathematical Modeling, Machine Learning, Data Science
 - Entrepreneurship
 - Bioinformatics



10. Tyrome Sweet, QSB (Advisor: Suzanne Sindi)

- Data Science
- Deep Learning
- Computational Biology

11. Ketika Garg, CIS (Advisor: Chris Kello)

- Anthropology
- Evolutionary Biology
- Human Foraging Patterns

12. Ben Falandays, CIS (Advisor: Michael Spivey)

- Interactionism in language

13. Lesly Lopez, QSB (Advisor: Emily Jane McTavish)

- Computational Biology
- Introgression

14. Shayna Bennet, AM (Advisor: Shilpa Khatri)

- Biological Invasions
- Spatial Movement

15. Jordan Collignon, AM (Advisor: Shilpa Khatri)

- Mathematical Modeling of Ecological Systems

16. Jose Alcala, ME (Advisor: YangQuan Chen)

- Mechatronics
- Control Systems with a focus in Unmanned Aerial Systems



Faculty

- 1. Ramesh Balasubramaniam, CIS:**
Cognitive Neuroscience, Human Motor control, Complexity, Perception & Action, Dynamical Systems & Music Cognition.
- 2. Chris Kello, CIS:**
Complex Dynamical Systems, Neural Networks, Speech and Language, Search and Foraging, Statistical Mechanics.
- 3. Stefano Carpin, EECS:**
Robotics, Autonomous Interactive Systems, Motion Planning
- 4. Suzanne Sindi, AM, QSB, CIS:**
Mathematical Biology, Genome Evolution & Population Dynamics
- 5. Paul Smaldino, QSB, CIS:**
Population Dynamics, Social and Cultural Evolution, Self-Organization, Mathematical and Computational Modeling, Systems Ecology, Quantitative and Theoretical Biology
- 6. Mukesh Singhal, EECS:**
Cloud Computing, Big Data, Distributed Computing, Internet of Things
- 7. YangQuan Chen, ME:**
Mechatronics, Cyber-Physical Systems, Fractional Calculus
- 8. David Noelle, CIS/EECS:**
Computational Cognitive Neuroscience, Machine Learning
- 9. David Ardell, QSB:**
Computational Biology of Gene Expression Systems, Structure, Function and Evaluation of Proteins and RNAs.
- 10. Emily Jane McTavish, QSB:**
Evolution, Phylogenetics, Genomics, Computational Biology
- 11. Shilpa Khatri, AM:**
Numerical Analysis, Fluid Dynamics, Applied Math, Applications in Biology and Oceanography

