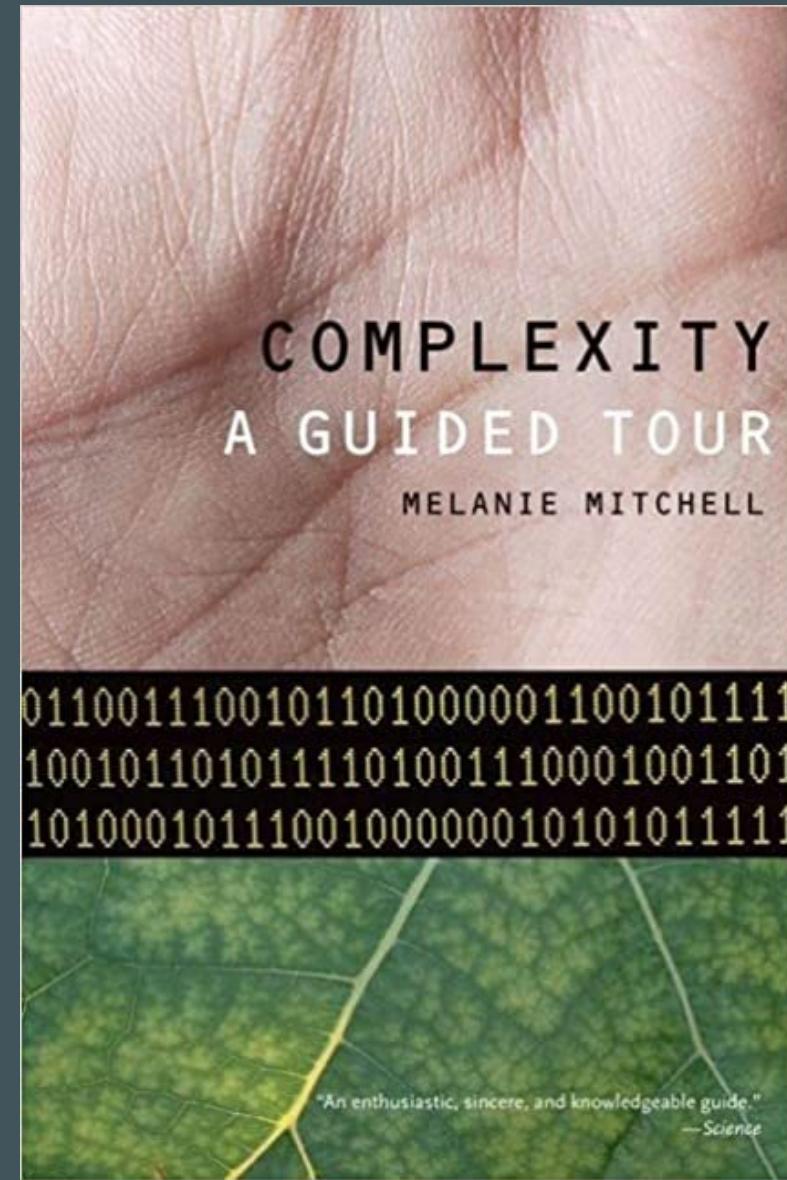


# Back to School

*Experiences and insights  
from the Complex Systems  
Summer School*



<https://www.bbc.co.uk/programmes/b03ls154>



<https://g.co/kgs/FkWzkP>



<https://www.complexityexplorer.org/>



# Application

- motivation letter
- questionnaire
- two recommendation letters
- diversity statement
- CV



# The origins, evolution, and diversity of human languages



<https://www.santafe.edu/research/projects/the-origins-evolution-and-diversity-of-human-languages>

SHARE



Sign Up For SFI News

## Language Is a Complex Adaptive System: Position Paper

The “Five Graces Group”

**Clay Beckner**

University of New Mexico

**Nick C. Ellis**

University of Michigan

**Richard Blythe**

University of Edinburgh

**John Holland**

Santa Fe Institute; University of Michigan

**Joan Bybee**

University of New Mexico

**Jinyun Ke**

University of Michigan

**Morten H. Christiansen**

Cornell University

**Diane Larsen-Freeman**

University of Michigan

**William Croft**

University of New Mexico

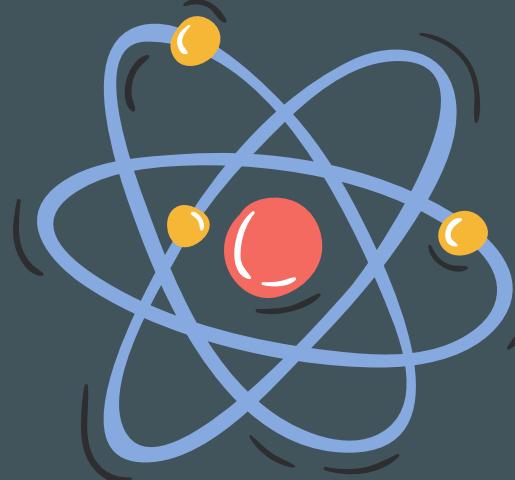
**Tom Schoenemann**

Indiana University

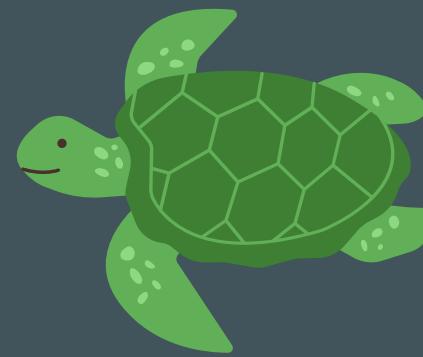
<https://doi.org/10.1111/j.1467-9922.2009.00533.x>



# Student's background



$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$



HI!  
BONJOUR  
HOLA!



**IAIA**  
INSTITUTE OF  
AMERICAN INDIAN ARTS



# Schedule

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
|   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |

- David Krakauer: Complexity
- Liz Bradley: Nonlinear dynamics
- Aaron Clauset: Networks
- Paul Smaldino: Math models & ABMs
- Dave Feldman: Information theory

@SFI Postdoc flash talks

# *Movie night Hike to Bandelier*

- Hyejin Youn: Innovation
- André de Roos: Population modeling
- Mary O'Connor: Ecosystems
- Geoffrey West: Scaling
- Sara Walker: Life
- Andreas Wagner: Evolution & adaptation

# *@SFI Project meetings & check ins*

# Meow wolf party

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
|   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |

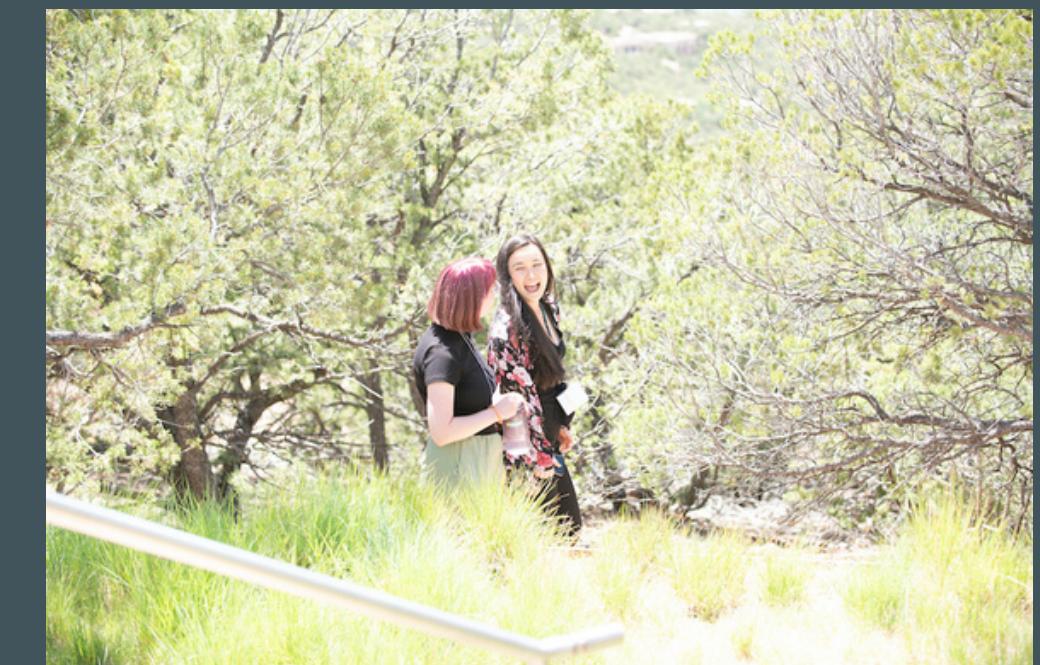
- Matt Jackson: Economic networks
- Orit Peleg: Collective behavior
- Thalia Wheatley: Collective neuroscience
- Bruno Olshausen: Neural encoding

Ask-me-anything sessions  
@SFI Project meetings &  
check ups

# Camping at White Sands

# *Group project work & presentations*

# Group collaboration



# Group project 1

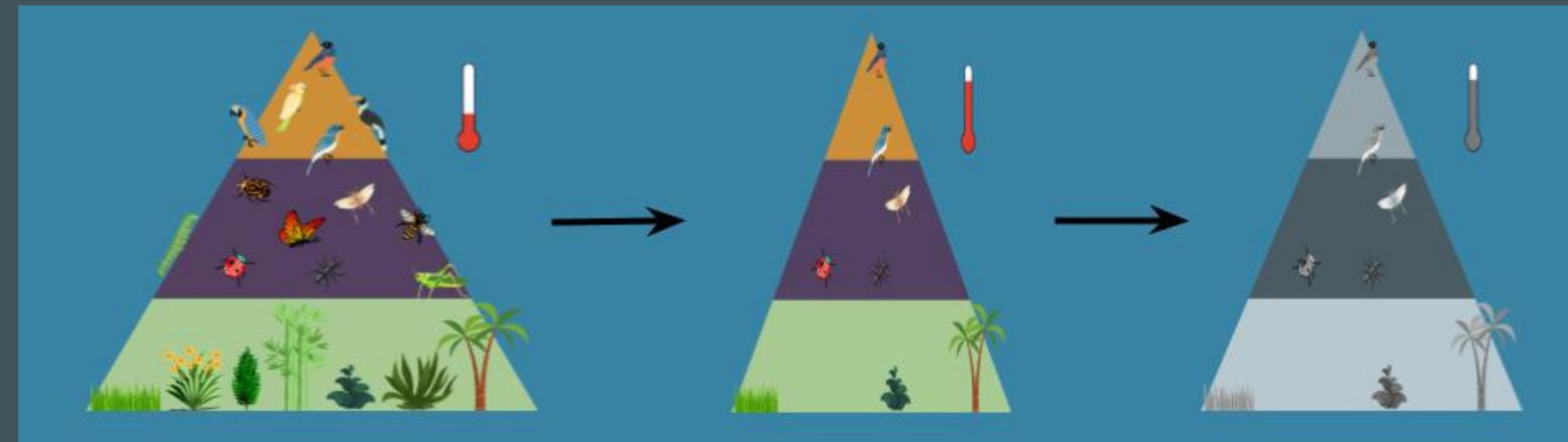


Complexity in insular ecological communities:

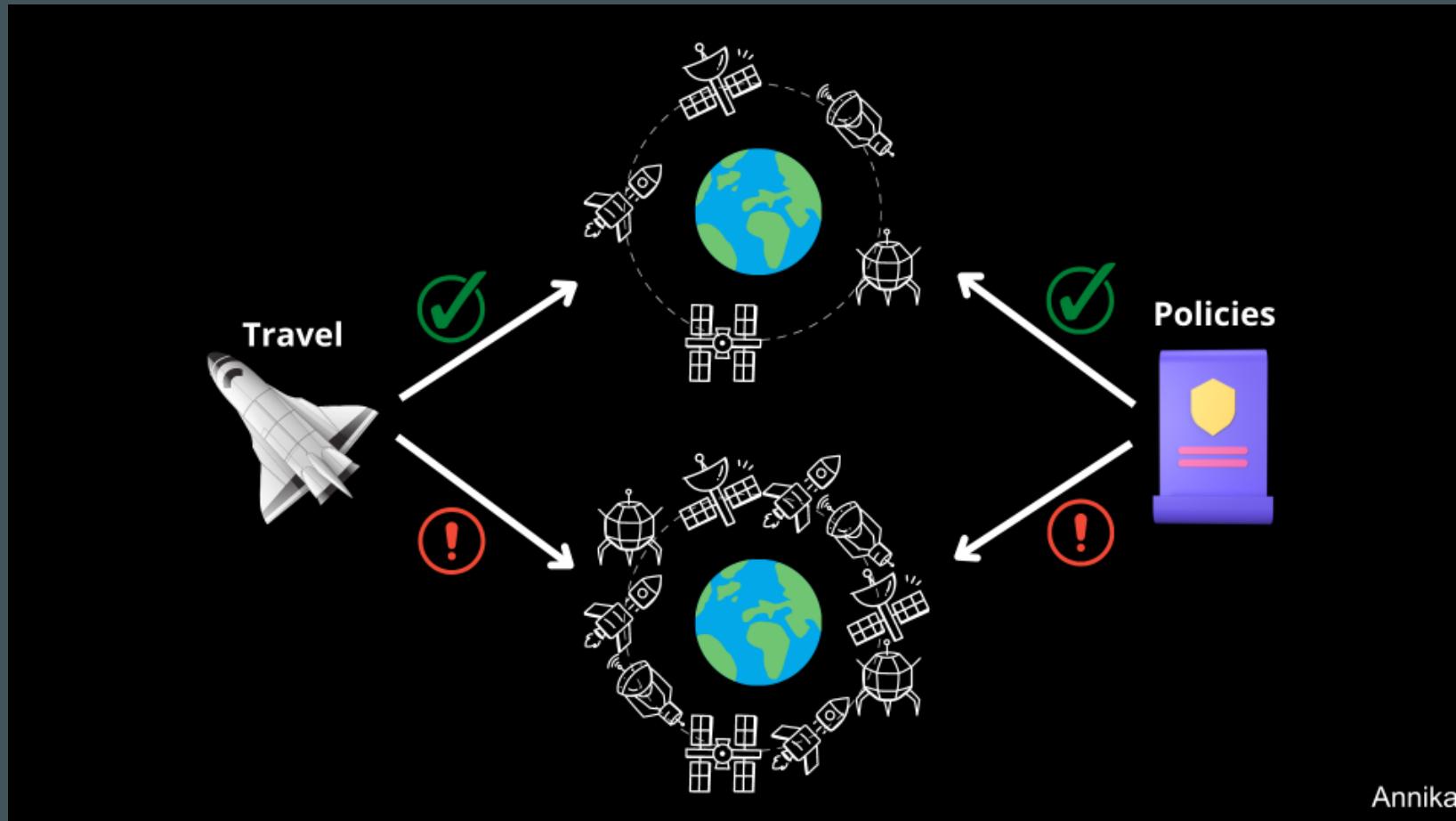
**Predicting climate warming impacts  
on island food web structure and stability**

Amy, Ankit, Annika, Gates, Keila, Tobias, Violeta

@GatesDupont, @AnnikaTjuka, @ReischTobias, @saupodlets, @stark\_keila, @VioletaCalleja



# Group project 2



## Space Commons

Keiko Nomura  
Darcy Bird  
Mathieu Baltussen  
Annika Tjuka  
Haily Merritt  
Dan Falk

@keiko\_nomuraa  
@darcybarcy  
@AnnikaTjuka  
@HailyMerritt  
@danfalk

*If you can read this, you must be sitting in the front row. :-)*



# Group project 2



# Must-haves

---



## Ice breakers

- Silent discussion
- Pair-wise introductions
- Name tags are important



## Community

- Discord/Slack/Mattermost
- Sports, activities, and games



## Collaboration

- Group project work
- Creative group project



## Mindset

- Openness
- Curiosity
- Interdisciplinarity



## Conversation

- Informal chats over lunch
- Students on their own



## Food

- A happy belly leads to a healthy mind

# After school



## Resources

A dedicated organized space to share slides, links, and other useful resources.



## Contacts

A contact sheet allows students to reach out to each other and stay in touch.



## Project report

Having a specific project to work on fosters exchange and collaboration.

# Santa Fe

