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Many challenges in the world today—algorithmic fairness, belief propagation, biodiversity, climate change, disease dynamics—extend beyond traditional academic boundaries due to their complexity. Research at the Santa Fe Institute aims to quantitatively describe, model, and understand complex systems drawing on theory from biology, social sciences, physics, math, and computer science.

- 10 weeks: Jun 1—Aug 9, 2025
- $7000 stipend + housing/meals/travel
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- Carry out a research project independently
- Select a mentor from a transdisciplinary team of SFI researchers
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Apply by Jan 14. More info: santafe.edu/UCR

EXAMPLE PROJECTS

Ocean Viruses
Elena Parkerson (2024)

How does light intensity influence viral mispackaging, and the horizontal gene transfer in ocean bacteria that comes with it? We incorporate light intensity into our stochastic model of two different viruses, and show that mispackaging is only affected in one of the species.

Cooperation in the Senate
Brady Dye (2022)

How can elected officials identify allies across party lines amidst growing polarization and distrust? This project aimed to predict Senators' voting records based on the demographics of their constituents.