

Corey Scher

CUNY Graduate Center
Department of Earth and Environmental Sciences
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Education

2025 (expected)

CUNY Graduate Center

Ph.D., Earth and Environmental Sciences

Dissertation successfully defended on January 21, 2025

Dissertation title: InSAR monitoring of landscape changes in war and conflict settings with case studies in Ukraine, Gaza, and the Jordan Valley

2019

City College of New York

M.S., Geology

2017

University of California, Berkeley

B.A., Geology

Experience

2024-

United Nations Operations (UNOPS)

Geographic Information Systems (GIS) Innovation Advisor

Development of GIS capabilities within the UNOPS Peace and Security Cluster

2018-2022

City College of New York

Graduate Research Fellow

Project: Mapping seasonal glacier melt across the Hindu Kush Himalaya with time series synthetic aperture radar (SAR)

2018-2020

Advanced Science Research Center

Graduate Research Fellow

Project: Coastal Hypoxia Analysis and Risk Tracking (CHART) through Remote Sensing and Process-based Modeling in South and Southeast Asia

2020

NASA Jet Propulsion Lab

Maximizing Student Potential in STEM Summer Internship

Project: Advancing Synergies Between ECOSTRESS and SAR for Study of Structure and Thermal Regimes in Tropical, Temperate and Cold Landscapes

2017-2018 **City College of New York**
Graduate Research Fellow
Project: NASA's Pandora Project using spectroscopy to study the composition of the atmosphere and its interactions with Earth's environment

2017-2019 **University of San Francisco**
Research Affiliate
Project: Remote monitoring of groundwater overdraft with GRACE and InSAR

2016-2017 **University of California, Berkeley**
Undergraduate Research Apprentice
Professor Laurel Larsen, Environmental Systems Dynamics Lab
Project: Evaluating downstream hydraulic-scaling laws over large changes in drainage area with multi-frequency LiDAR

Teaching

2017-2024 **Department of Earth and Atmospheric Sciences, City College of New York**
Lab Instructor, Earth Systems Science

2018 **Department of Earth and Atmospheric Sciences, City College of New York**
Lab Instructor, Systems Analysis of the Earth

Workshops

2024 **NASA and USAID**
Co-design and delivery of three-day workshop on urban hazard and vulnerability assessment with Earth observation data in San Salvador, El Salvador

2022 **NASA Applied Remote Sensing Training (ARSET)**
Co-design and delivery of a training titled "Monitoring urban damage with interferometric synthetic aperture radar"

Awards

2020 **NASA Summer Maximizing Student Potential in STEM program**

2019 **AGU Travel Grant Recipient**
Conference: "Quest for Sustainability of Heavily Stressed Aquifers"
Valencia, Spain

Publications

Asi, Yara, David Mills, P. Gregg Greenough, Dennis Kunichoff, Saira Khan, Jamon Van Den Hoek, **Corey Scher** et al. "‘Nowhere and no one is safe’: spatial analysis of damage to critical civilian infrastructure in the Gaza Strip during the first phase of the Israeli military campaign, 7 October to 22 November 2023." *Conflict and Health* 18, no. 1 (2024): 24.

Corey Scher, Nick Steiner, & Kyle McDonald. "Mapping seasonal glacier melt across the Hindu Kush Himalaya with time series SAR." *The Cryosphere* 15, no. 3 (2021): 901-913.

Conference Sessions

Scher, Corey, Iryna Dronova, Jamon Van Den Hoek, and Emnet Negash. "Tracking the Footprint of War: Earth and Environmental Science Perspectives on Monitoring Conflict Impacts." In American Geophysical Union Fall Meeting 2024.

Conference Presentations

Van Den Hoek, Jamon, and **Corey Scher**. "Nationwide Mapping of Damage to Human Settlements Across Ukraine Using Sentinel-1 InSAR Coherent Change Detection." Paper presented at the Global Land Program Open Science Meeting, Online, November 5, 2024.

Scher, Corey. "The Science and Practice of War Damage Impact Assessment Using Satellite Radar." Application Lightning Talk presented at the SatSummit 2024, Washington, D.C., May 17, 2024.

Scher, Corey, and Jamon Van Den Hoek. "Nationwide mapping of damage to human settlements across Ukraine using Sentinel-1 InSAR coherence change detection." In *AGU Fall Meeting Abstracts*, vol. 2023, pp. GC23A-01. 2023.

Scher, Corey, and Jamon Van Den Hoek. "Decentralized, nation-wide, high-frequency war damage mapping using InSAR time series data." In *AGU Fall Meeting Abstracts*, vol. 2022, pp. NH32D-0489. 2022.

Scher, Corey, and David Saah. "Extent and characteristics of damage from wildfires caused by incendiary kites during protests of the Gaza-Israel barrier fence (March 2018 to present)." In *AGU Fall Meeting Abstracts*, vol. 2018, pp. NH23C-0862. 2018.

Scher, Corey, Kyle C. McDonald, Charles J. Vorosmarty, and David Saah. "Monitoring Sustainability of Shared Groundwater Resources using Satellite Measurement of Transboundary Aquifer Compaction." In *Chapman Conference on the Quest for Sustainability of Heavily Stressed Aquifers at Regional to Global Scales*. AGU, 2019.

Scher, Coery, and David Saah. "Remote Monitoring of Groundwater Overdraft Using GRACE and InSAR." *AGU Fall Meeting Abstracts*, 2017, H11B-1176.

Scher, Corey, Christopher Tennant, Laurel Larsen, and Dino G. Bellugi. "Do rivers really obey

power-laws? Using continuous high resolution measurements to define bankfull channel and evaluate downstream hydraulic-scaling over large changes in drainage area.” In *AGU Fall Meeting Abstracts*, vol. 2016, pp. EP51A-0876. 2016.