UVic Postdoc Research Day 2026

May 6, SUB Upper Lounge

We acknowledge and respect the Lək̓ʷəŋən (Songhees and Xʷsepsəm/Esquimalt) Peoples on whose territory the university stands, and the Lək̓ʷəŋən and W̱SÁNEĆ Peoples whose historical relationships with the land continue to this day.

UVic Postdoc Research Day 2026 Schedule

10:00 am	Registration and coffee
10:20 am	Welcome remarks
10:30 am	Research talks session 1
11:40 am	Intro to discussion groups
11:45 am	Lunch
12:45 pm	Research talks session 2
1:45 pm	Coffee break and voting
2:00 pm	Discussion groups
3:00 pm	Discussion group sharing
3:30 pm	Awards and close
4:00 pm	Social at Grad House

Research talks at a glance

Research talks session 1

- Akshara Viswanathan
- Prateksh Dhivakar
- Katie Hughes
- Maria Kuruvilla
- Michael Allison
- Giuliana Berden
- Argelia Silva Fragoso
- Keyi Cheng
- Kumar Roy
- Daniella Roze des Ordons

Research talks session 2

- Fernando Gonzalez Ibanez
- Scott William
- Pawel Kudzia
- James Clay
- Ana Maria Castro
- Rachel Friedman
- Pratik Gujar
- Kate Lonergan
- Anna Offenwanger

Welcome remarks

10:20 am – 10:30 am

Dr. Peter Loock

Dean of Science and Professor in the Department of Chemistry

Dr. Peter Loock has been Dean of Science at the University of Victoria since 2020, and prior to that was a professor at Queen's University. The Loock Laser Lab develops instruments, systems, and processes for optical measurements of absorption, fluorescence, mechanical strain, pressure, vibration and refractive index. Recent inventions by the Loock Group range from novel fluorescence spectrometers to guitar pick-ups, and from fiber-optic absorption sensors to materials for heavy metal sensing. Recent research includes work in fundamental optics of (micro)optical cavities, and other optical resonators, but also industrially oriented research on sensor systems for process monitoring. Peter Loock's teaching interests are in physical chemistry and spectroscopy. He has taught courses in general chemistry, introductory quantum chemistry, molecular spectroscopy, physical chemistry of materials, and advanced courses related to chemical and materials characterization.

Research talks session 1

10:30 am – 10:40 am

Session Moderator: Pawel Kudzia

Akshara Viswanathan

The Milky Way as a laboratory for first stars and dark matter

Department of Physics and Astronomy

Akshara Viswanathan, Kim A. Venn, Julio Navarro, Madeleine McKenzie, Daniel Boyea, Else Starkenburg, Nicolas F. Martin, Amina Helmi

The Milky Way grew by consuming smaller galaxies, leaving behind ancient stars as witnesses to its violent birth. By analyzing their unique chemical fingerprints and motions, I map these "shredded" remains to reconstruct our galaxy’s history and reveal how invisible dark matter continues to shape our cosmic home.

Prateksh Dhivakar

Why is gravity so different from the other 3 fundamental forces?

Department of Physics and Astronomy

Prateksh Dhivakar

We will devise a thought experiment with a black hole to uncover how the gravitational force that holds the planets in orbits works very differently from the other three fundamental forces of nature, namely the Strong and Weak nuclear forces, and the Electromagnetic force.

Katie Hughes

Lakes can get tsunamis too!

Department of Geography

Katie E. Hughes, Eva Kwoll & Marten Geertsema

When a large landslide impacts a lake, it can trigger a destructive tsunami — posing a hazard to communities and infrastructure. This talk explores how the history of these events can be pieced together using lake floor mapping, lake sediments, and numerical modelling, with case studies from BC and New Zealand.

Maria Kuruvilla

Estimating the impact of forestry on salmon

Department of Biology

M. D. Hocking, M. Kuruvilla, J. Braga, E. M. Atkinson, D. A. Greenberg, O. Cornies, L. Krichel, A. Kamarainen, C. Glass, J. Speier, M. Nicolson, B. Connors, P. Tschaplinski, A. Buren, A. W. Bateman, F. J. A. Lewis, M. A. Lewis, M. Krkosek

Over a century of industrial forest harvesting has occurred around rivers that support salmon in BC. Forestry has altered the flow, sediments, and structure of the rivers, all of which are important for salmon. We estimated the impact of forestry on salmon populations across coastal BC using historical data and statistical models.

Michael Allison

Genomics-based biomonitoring of a threatened forage fish

Department of Biochemistry and Microbiology

Michael J. Allison

Oolichan are critically important to ecosystems along the Pacific Coast of North America, and hold special cultural value to many Indigenous groups. Their drastic population decline may be mitigated with the help of cutting-edge genomic tools which have proven value in ecology. Advancement of these tools holds even greater promise.

Giuliana Berden

Cuddies: hidden vortices that export and trap life in the Northeast Pacific

School of Earth and Ocean Sciences

Giuliana Berden, Jody Klymak, Tetjana Ross, Guoqi Han, Lauryn Talbot

The ocean off Vancouver Island hides invisible spinning water masses called Cuddies. These underwater eddies transport coastal water offshore and sustain life for months. Using gliders and satellites, we tracked one Cuddy through its entire life cycle, revealing how it mixes and shapes the ocean ecosystem.

Argelia Silva Fragoso

Exploring active faults by coupling 2D numerical modelling and high-resolution remote sensing

School of Earth and Ocean Sciences

Silva-Fragoso Argelia., Naliboff John, Norini Gianluca, Douglas Daniel, Nappi Rosa, Gropelli Gianluca, Michetti Alessandro

Ischia Island’s northern sector suffers from destructive earthquakes. Using drone-based LiDAR and numerical simulations, researchers found that shallow magma intrusions, rather than regional tectonic stress, drive the island's extreme deformation. These findings clarify the link between magma movement and one of the highest seismic risk across Italy.

Keyi Cheng

What can we extract from rock records? Providing paleo-O2 constraints based on cGENIE iodine cycling

School of Earth and Ocean Sciences

Keyi Cheng

The I/Ca ratio in rock records is a tool to reconstruct oxygen in ancient seawater and atmosphere. We used a compilation of I/Ca record through the Earth history and an Earth system model to estimate the oxygen abundance in the atmosphere millions of years ago.

Kumar Roy

Small Clouds, Big Impacts: Why Extreme Weather Is Hard to Predict

Department of Mathematics and Statistics

Kumar Roy, Boualem Khouider

Why is extreme weather so difficult to predict? A key reason lies in small-scale processes like clouds, which are challenging to represent in climate models. Despite their size, these processes can shape large-scale patterns and extremes, making their accurate representation crucial for improving forecasts.

Daniella Roze des Ordons

ÁLEN̲ENEȻ – Indigenous Science Education for Indigenous Sovereignty and Resurgence

School of Environmental Studies; Faculty of Education

Daniella Roze des Ordons

In this presentation, I will discuss my work with the W̲SÁNEĆ-led community-based research project, ÁLEN̲ENEȻ – Indigenous Science Education for Indigenous Sovereignty and Resurgence. Early developments, alongside reflections on engaging in Indigenous-led research as a settler postdoctoral fellow will be presented, emphasizing relational, ethical, and methodological considerations.

Research talks session 2

12:45 pm – 1:45 pm

Session moderator: Daniella Roze des Ordons

Fernando Gonzalez Ibanez

TBD

School of Medical Sciences, Faculty of Health

Scott William

Exploring telehealth-supported resuscitation in rural NSW emergency departments: A mixed-methods study

Department of Anesthesiology, Pharmacology, & Therapeutics, Therapeutics Initiative, University of British Columbia, Canada. School of Nursing, Faculty of Science, Medicine, and Heath, University of Wollongong, Australia

Dr Katherine Riley, Dr Scott William, Dr Colin Cortie, Emily Detourettes, Karla Kuzmins, Professor Caleb Ferguson

Telehealth-supported resuscitation is widely used in rural NSW emergency departments and valued for time-critical decision-making. In a mixed-methods survey (n=42), clinicians reported high confidence communicating with remote specialists but gaps in coordination, audiovisual reliability, training, and protocols. Effective implementation requires reliable technology, clear leadership, context-sensitive advice, and standardized training pathways.

Pawel Kudzia

Biomechanics in the wild

School of Exercise Science, Physical and Health Education

Pawel Kudzia

I will talk about my work in biomechanics, developing tools and methods to move outside of the lab.

James Clay

Raising the Floor: Who Benefits Most from Alcohol Minimum Unit Pricing in BC?

Canadian Institute for Substance Use Research

James Clay, Keegan Lawrence, Adam Sherk, Mark Asbridge, Tim Stockwell, Gerald Thomas, Kate Johnston, Tim Naimi

Minimum unit pricing (MUP) sets a floor price per alcoholic drink. This study uses BC survey and retail data to model how four MUP price thresholds would affect drinking, spending, and health outcomes across income levels, drinking patterns, and demographic groups — providing evidence to guide equitable alcohol policy in BC.

Ana Maria Castro

Understanding Waste Pickers' Interest in Education: Insights from Victoria and Vancouver, Canada

Department of Geography and Centre for Global Studies

Ana Maria Castro, Julia Heins, Jutta Gutberlet

Waste pickers collect recyclable materials, supporting recycling systems and reducing pollution, yet they often face stigma and poor working conditions. This project explores whether waste pickers in Victoria and Vancouver are interested in education, and what kinds of learning opportunities could better support their lives and work.

Rachel Friedman

Cultivating Accountability: Policy Opportunities for Sustainability in Canada's Agri-food Trade

Department of Geography

Rachel S Friedman, Sophia L Carodenuto

Global food supply chains contribute substantially to the worldwide environmental crisis. Some consumer countries are trialing new regulatory approaches to reduce the persistent social and environmental harms embedded in global supply chains, but what this could look like in Canada remains under debate. This study examines the potential Canadian policy options, and how they align with the interests, priorities, and capacities of food supply chain actors, identifying political and practical hurdles associated with designing effective environmental sustainability policy measures.

Pratik Gujar

The myth of coating concrete surface

Civil Engineering

Pratik Gujar

Coatings are applied to concrete surfaces to protect them from environmental exposure, enhancing service life. Typically, they are applied after the concrete has hardened, following conventional practice. This study investigated the ideal time for coating applications to achieve maximum interfacial bonding and improve the overall durability of coated concrete systems.

Kate Lonergan

Energy systems modelling for a fair, low-carbon energy transition

Civil Engineering, Institute for Integrated Energy Systems

Kate Lonergan

A successful low-carbon energy transition requires massive infrastructure investments - but how can we make those investments in a way that is socially acceptable? This talk explains how computational models can overcome common planning hurdles and mitigate conflicts before they arise.

Anna Offenwanger

The World is on Fire - So let’s play games: Serious Games for Environmental Planning

Environmental Science, Computer Science

Anna Offenwanger

Modeling techniques in environmental science often fail to represent human agency, which has been linked to their failure to stimulate action. We investigate how Serious Games can be a means of leveraging environmental modeling to actively support decision making in environmental contexts, thereby bridging this gap between models and actions.