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Education

- 2001 Ph.D., Plant Ecology, Lund University, Lund, Sweden
Ph.D. Thesis: *Geophysical Applications of Vegetation Modeling*. Supervisor: Prof. I. Colin Prentice
- 1994 B.A., Geography and Earth Sciences with honors, Dartmouth College, Hanover, NH, USA
Honors Thesis: *Defining the Little Ice Age: Dendrochronology of Alpine Larch in the Purcell Mountains of British Columbia*. Supervisor: Prof. Laura Conkey

Professional Experience

- Since 2024 The Canada Research Chair in Global System Modeling
- Since 2023 Professor, Department of Earth, Energy, and Environment and Department of Computer Science, University of Calgary, Calgary, AB, Canada
- 2019-2023 Associate Professor, Department of Earth Sciences and Deputy Director, Institute for Climate Change and Carbon Neutrality, The University of Hong Kong, Hong Kong SAR, China
- 2018-2022 *Make Our Planet Great Again* Senior Research Fellow, Institute of Geography, University of Augsburg, Germany
- 2017-2018 Jackson Senior Research Fellow in Land Use and Environmental Change, Environmental Change Institute, Oxford University Centre for the Environment, University of Oxford, UK
- 2017-2022 Professorial Fellow, Max Planck Institute for the Science of Human History, Jena, Germany
- 2016-2019 Adjunct Associate Professor, Laboratory for Tree-Ring Research, University of Arizona, USA
- 2010-2019 Founder and Chief Scientist, ARVE Research Sàrl, Pully, Switzerland
- 2014-2017 European Research Council grant-holder professor, Institute of Earth Surface Dynamics, University of Lausanne, Switzerland
- 2013-2014 European Research Council grant-holder professor, Institute for Environmental Science, University of Geneva, Switzerland
- 2008-2013 Swiss National Science Foundation Professor, Institute of Environmental Engineering, Ecole Polytechnique Fédérale de Lausanne, Switzerland
- 2010-2013 Adjunct Assistant Professor, School of Earth and Ocean Sciences, University of Victoria, Victoria BC, Canada
- 2006-2008 Research scientist, Swiss Federal Institute for Forest, Snow and Landscape Research, Lausanne/Birmensdorf Switzerland
- 2005-2006 Senior research associate (*Oberassistent*), Paleoecology section, Institute of Plant Sciences, University of Bern, Switzerland
- 2003-2005 Marie Curie Fellow, European Commission Joint Research Centre, Institute for Environment and Sustainability, Ispra, Italy

2002-2003 Postdoctoral scientist, Canadian Centre for Climate Modelling and Analysis, Victoria BC, Canada

2001-2002 Postdoctoral scientist, Max Planck Institute for Biogeochemistry, Jena, Germany

Scholarships, awards and other honors

- 2024 Tier 1 Canada Research Chair. Award value CAD 1,610,000
- 2018 *Laureate*, Make Our Planet Great Again German Research Initiative. Awarded € 1.5m research grant in worldwide open competition (top 4.5% of all applicants).
- 2012 *Laureate*, European Research Council Starting Grant. Awarded € 1.5m in worldwide open competition (top 12% of all applicants).
- 2008 Swiss National Science Foundation professorship. Awarded CHF 1.54m in international competition in all domains of scholarship (top 20% of applicants – 36/182).
- 2003 Invited presentation: The isotopic signature of Ice Age terrestrial methane, given at the 1st International Young Scientists' Global Change Conference, IGBP/WCRP/START, Trieste, Italy (80 out of >1100 selected)
- 2002 Awarded European Commission Marie Curie Fellowship (258 funded out of 1156 applicants)
- 2002 Awarded NSERC Visiting Fellowship in Canadian Government Laboratories
- 2002 Outstanding student paper award, American Geophysical Union fall meeting
- 2001 NSERC Visiting Fellowship in Canadian Government Laboratories
- 2001-2002 Max Planck Society postdoctoral research fellowship
- 1998-2001 Max Planck Society scholarship for doctoral research
- 1993 Waterhouse and Andrew W. Mellon grants for honors thesis research

Supervision of graduate students, postdoctoral fellows, and other researchers

Doctoral students directly supervised or co-supervised

Name	Period of supervision	Thesis title	Present position
Joe Melton	2005-2009	<i>Methane stable carbon isotope dynamics spanning the Last Deglaciation</i>	Senior scientist, Canadian Centre for Climate Modelling and Analysis, Canada
Mirjam Pfeiffer	2008-2012	<i>Modeling Terrestrial Paleobiogeochemistry: Linking Fire, Biochemistry, Humans, and Climate</i>	Postdoctoral fellow, Senckenberg Biodiversity and Climate Research Center, Germany
Pamela Collins	2008-2013	<i>Drivers of Holocene Land Cover Change in Europe</i>	American Association for the Advancement of Science fellow, United States Army Corps of Engineers
Achille Mauri	2009-2013	<i>The Climate of Europe during the Holocene Reconstructed from Pollen Data</i>	Postdoctoral fellow, European Commission Joint Research Center, Italy
Marc Scherstjanoi	2009-2013	<i>Towards an Efficient Plant Physiology-based Modeling of Spatial Forest Dynamics</i>	Researcher, Swiss Federal Institute for Forest, Snow and Landscape Research

Name	Period of supervision	Thesis title	Present position
Ryan Hughes	2014-2016	<i>Agricultural Development and Dietary Change in Switzerland from the Hallstatt (800 B.C.E.) to the Rise of the Carolingian Dynasty (754 C.E.)</i>	Consulting archaeologist
Andrea Kay	2014-2018	<i>Livelihoods, land use, and population in pre-colonial sub-Saharan Africa: Advances in the quantification of human-environment interactions over archaeological time-scales</i>	Postdoctoral researcher, Max Planck Institute for the Science of Human History, Germany
Emeline Chaste	2014-2018	<i>Risques Passés et Futurs D'incendies, et Leurs Incidences sur la Résilience de la Forêt Boréale de l'Est Canadien</i>	Postdoctoral researcher, INRA, France
Leanne Phelps	2015-2017	<i>Reconstructing land use and land cover dynamics of Holocene animal production on the African continent</i>	Postdoctoral researcher, University of Edinburgh
Philipp Sommer	2015-2018	<i>Software and Numerical Tools for Paleoclimate Analysis</i>	Research Scientist, Institute for Coastal Research, Helmholtz-Zentrum Geesthacht, Germany
Ayodele Ogunkoya	2015-2020	<i>Understanding the Present and Past Climate-Fire-Vegetation Dynamics of Southern South America (40 – 45° S)</i>	
Quentin Lejeune	2013-2015	<i>Multi-model investigations of the biogeophysical effects of historical and future land-cover changes on climate</i>	Researcher, Climate Analytics, Germany
Samuel Bouchoms	2013-2015	<i>Long-term interactions between soil organic carbon dynamics, sediment redistribution and soil evolution</i>	

Current graduate students

Name	Since	Main institution	Co-supervisors (if any)
Leo O Lai	September 2020	The University of Hong Kong	
Maxwell Collins	January 2021	The University of Hong Kong	
Katie Strattman	September 2021	The University of Hong Kong	
Kayla Murai	September 2020	The University of Hong Kong	Dr. Nicole Khan
Zhiqi Zheng	September 2020	The University of Hong Kong	Prof. Zhonghui Liu
Yadian Wang	January 2022	The University of Hong Kong	Dr. Peter Cobb
Giancarlo DeFrancesco	January 2022	The University of Hong Kong	

Other students and research interns

Name	Period of supervision	Degree awarded	Thesis title or other comments
Yui Wang Ying	2021-2022	B.Sc.	<i>Meteorological conditions for wildfire in Hong Kong under scenarios of projected future climate change</i>
Marcus Yee	2021-2022	B.Sc.	<i>The effects of historical urbanization and land reclamation on the climate of Hong Kong</i>
Tianxing Ma	2020-2021	B.Sc.	<i>Statistical downscaling of daily precipitation to hourly estimates</i>
Ming Ho Lam	2020-2021	B.Sc.	<i>The impact of the Little Ice Age on Chinese society</i>
Leonardo Echeverria	2014-2015	M.Sc. (ETH Zürich)	<i>Numerical Modeling of Human Population Dynamics</i>
Barbara Mejia	2015-2016	B.Sc.	<i>Assessing demographic responses to the origin of agriculture in West Africa</i>
Guilia Bovo	2015-2016	B.Sc.	<i>Changement de la couverture végétale de la plaine du Pô à partir de l'âge du Fer</i>
Morgane Koumrouyan	2015-2016	B.Sc.	<i>Coexistence d'une agriculture durable avec l'enfouissement de matériaux d'excavation et intertes à Genève</i>
Vasco Lepori	2015-2016	B.Sc.	<i>Factors influencing regeneration dynamics in a temperate coniferous forest in the Southern Interior of British Columbia</i>
Matthias Heer	2016-2017	B.Sc.	<i>Evaluation de l'impact environnemental de la culture des fibres textiles coton, lin et chanvre</i>
John Shekeine	2014-2016		Research intern

Senior researchers, postdoctoral fellows, and assistants

Name	Period of supervision	Comments
Dr. Alexander Koch	2019-2021	Postdoctoral Fellow, Department of Earth Sciences, The University of Hong Kong
Katie Lau Hong-Kiu	2019-	Research Assistant, Department of Earth Sciences, University of Hong Kong
Katie Strattman	2020-2021	Research Assistant, Department of Earth Sciences, University of Hong Kong
Leo O Lai	2020	Research Assistant, Department of Earth Sciences, University of Hong Kong
Dr. Jake Simpson	2019-2021	Senior scientist, Institute of Geography, University of Augsburg, Germany
Dr. Fenner Holman	2020-2021	Research technician, Institute of Geography, University of Augsburg, Germany
Dr. Sina Berger	2020-	Postdoctoral Fellow, Institute of Geography, University of Augsburg, Germany

Name	Period of supervision	Comments
Solveig Bloecher	2020-	Research Assistant, Institute of Geography, University of Augsburg, Germany
Dr. Basil Davis	2008-2017	Senior scientist, Institute of Earth Surface Dynamics, University of Lausanne
Dr. Ryan Hughes	2016-2017	Team Leader, Pix4D, Switzerland
Dr. Joe Melton	2009-2012	Now senior scientist, Canadian Centre for Climate Modelling and Analysis, Canada
Kristen Krumhardt	2008-2013	Postdoctoral fellow, University of Colorado, Boulder, USA
Marco Zanon	2010-2013	Postdoctoral fellow, University of Kiel, Germany
Dr. Shawn Koppenhoefer	2011-2017	Scientific programmer and IT technician

Courses taught

Title	Level	Institution	Program	Size	Comments
<i>Current</i>					
Ways of Making and Knowing	B.Sc./B.A.	University of Calgary	Arts and Sciences Honors Academy	35	Required foundational liberal arts course for honors academy students
<i>Past</i>					
Meteorology	B.Sc.	The University of Hong Kong	Earth System Sciences	~10	Required course for major
Earth System Science Field Studies	B.Sc.	The University of Hong Kong	Earth System Sciences	~12	Field course in the Western U.S.
Understanding Climate Change	B.Sc. (for non-science majors)	The University of Hong Kong	Common Core (general ed)	~120	Satisfies science distributive for non-majors
Evolving Earth Systems	Graduate	The University of Hong Kong	Earth Sciences	~10	
European Research Course on Atmospheres	Ph.D.	Université Joseph Fourier, Grenoble, France	International, Interdisciplinary	50	Invited lecturer 2014-2023
Perspectives on the Anthropocene	B.Sc.	University of Lausanne (UNIL)	Environmental sciences, Geography	~60	42/50 evaluations globally positive; 34/50 felt they had a significant learning experience
Introduction to Environmental Engineering	B.Sc.	Ecole Polytechnique Fédérale de Lausanne (EPFL)	Environmental engineering	100	Team taught

Title	Level	Institution	Program	Size	Comments
Climate and Climate Change	M.Sc.	EPFL	Environmental engineering	60	
Design Projects in Environmental Engineering	M.Sc.	EPFL	Environmental engineering	6	
Land Cover, Climate, and Human Interactions	Ph.D.	EPFL	Civil and Environmental Engineering	5	

Other educational experience

In addition to the students I personally supervised, I have been an official and unofficial mentor for numerous doctoral students over the years. I have been invited to lecture in several international summer schools and other European courses for graduate students. My participation as a teacher on these courses was sponsored by the European Science Foundation, the Swiss National Centre for Competence-Climate, and Lund University, among others. I have been an external examiner for Ph.D. dissertations at Lund University, the University of Leuven, VU Amsterdam, Université Aix-Marseille, the Université Pierre et Marie Curie (UPMC) and the Université de Versailles (UVSQ), Paris, Université Joseph Fourier de Grenoble, and the University of Victoria, Canada.

Service and administrative experience

2023-2024	Committee on Field Schools, Department of Earth, Energy, and Environment, University of Calgary
2022-2023	Deputy Director, Institute for Climate and Carbon Neutrality, The University of Hong Kong
2020-2023	Elected representative, Faculty Human Resources Committee, Faculty of Science, The University of Hong Kong
2019-2021	Vice-chairman, Senior Common Room, The University of Hong Kong
2019-2020	Member, Faculty Research Committee, Faculty of Science, The University of Hong Kong

Membership in the scientific steering committee of national and international research networks

- Integrated History of People on Earth ([IHOPE](#)) program
- Future Earth/PAGES working group [LandCover6k](#)

Other service and Leadership in the Scientific and Educational Community

Editor-in-Chief, *Global and Planetary Change* (Elsevier)

Manuscript reviewing

I am a regular peer reviewer of research articles submitted to *Nature*, *Science*, *PNAS*, *Nature Geoscience*, *Global Change Biology*, *Global Biogeochemical Cycles*, *Environmental Research Letters*, *Quaternary Science Reviews*, *Ecology*, *Geophysical Research Letters*, *Global and Planetary Change*, *Earth Interactions*, *Climate of the Past*, and many other internationally recognized journals.

Proposal reviewing

I regularly review of grant proposals to National Science Foundations (and similar agencies) in Switzerland, the United States, United Kingdom, France, The Netherlands, Belgium, Flanders, Poland, and for the African Academy of Sciences and the AXA Research Fund.

Advisory boards and selection panels

I have been a member of the selection committee panel for postdoctoral fellowships from the AXA Research Fund and for grants from the Swedish Research Council. I served on the scientific advisory board for the Nordic Countries top-level research initiative *Interaction between climate change and the cryosphere* (NORDFORSK ICC).

Mentoring

I have mentored a group of high school students (Edmonds High School, Edmonds WA, USA) on a science fair research project to develop an augmented reality sand table for simulating and quantifying earthquake effects on sediment mobilization and erosion. I have informally mentored a number of students and colleagues from undergraduates through to postdocs and associate professors over the years.

Other contributions

I was a contributing author to the IPCC *Fifth Assessment Report*, and a nominated peer reviewer of the IPCC *Fourth Assessment Report*.

I conceived the Wetland and Methane Model Intercomparison Project ([WETCHIMP](#)) and I am a participant in the Paleoclimate Model Intercomparison Project (PMIP), and the Fire Model Intercomparison Project (FireMIP)

Professional Society Membership

American Geophysical Union, biogeosciences section (since 1999)

Ecological Society of America

Languages and Cultural Experience

English (mother tongue), Dutch, French, German, Italian, Swedish. I have successfully taught an undergraduate course in French (60 students, 3hrs lecture/week, 6 ECTS). As a triple national of Switzerland, U.S., and Belgium, and having lived in eight countries on three continents as an adult, I have a unique set of cultural and communication skills that enhance my abilities as a leader. I am fully fluent in three European languages, and I am functional in four others. My current research team of nine scientific and technical staff includes nationals of the United Kingdom, Italy, France, Germany, Belgium, Canada, and the United States. I move comfortably in international environments and I do not have trouble adapting to new situations.

Invited presentations over recent years*International conferences and workshops*

- December 2024 American Geophysical Union Fall Meeting (invited presenter)
- April 2024 2nd Math Climate Day Conference, University of Calgary, Canada
- May 2023 International workshop: *PANTROPOCENE: Finding a Pre-industrial, Pantropical “Anthropocene”*, Manila, Philippines (invited speaker)
- March 2023 International conference *Anthromes, CO₂, and Terrestrial Carbon*, Washington D.C., USA (invited speaker).
- February 2023 International workshop: *Continuity and Discontinuity of Agrotechnological Transfer in the Eastern Mediterranean Region between Late Antiquity and Early Modern Times – Plot and Berm Agroecosystems as a Case Study*, Ramat Gan, Israel (invited speaker)
- January 2023 European Research Course on Atmospheres, Grenoble, France (Ph.D.-level intensive course with highly selective admissions) (invited lecturer)
- December 2022 American Geophysical Union Fall meeting (two invited presentations)
- December 2020 International workshop for the FURNACES project, Germany/Austria (online; invited speaker)
- July 2020 International workshop for the ICECAP project, U.S.A. (online; invited speaker)
- December 2019 Make Our Planet Great Again Germany workshop, Cologne, Germany (invited speaker)
- December 2019 International workshop on Demographic Change and the Spread of Rice Agriculture in Southeastern Asia During the Late Holocene, Sun Yat-Sen University, Guangzhou, China (workshop convener and invited speaker)
- October 2019 International High-Level Conference for the Franco-German Make Our Planet Great Again initiative, Paris, France (invited speaker)
- September 2019 International workshop on modelling past land use systems, Arizona State University, Arizona U.S.A. (invited speaker)

- September 2019 International workshop on Holocene human-environment interactions, University of Cologne, Cologne, Germany (invited speaker)
- May 2019 International workshop for the ICECAP project, University of Washington, Seattle, U.S.A. (invited speaker)
- May 2019 International workshop on food security through history, Max Planck Institute for the Science of Human History, Jena, Germany (invited speaker)
- October 2018 Make Our Planet Great Again Germany workshop, Cologne, Germany (invited speaker)
- September 2018 International workshop on paleoclimate reconstruction and modelling, Tuscany, Italy (invited speaker)
- June 2018 International workshop for the ICECAP project, University of Rochester, U.S.A. (invited speaker)
- April 2018 International workshop on Holocene Land Use and Anthropogenic Land Cover Changes in Southern China, Sun Yat-sen University, China (invited speaker)
- February 2018 International workshop on the Emergence of Societal Complexity through Human Environment Relations, Technical University of Delft, The Netherlands (invited speaker)
- October 2017 Societal adaptations to abrupt climate changes before global warming, Yale University, USA (invited participant)
- June 2017 International conference on Climate Change, Human Impact and Landscape Evolution in the Southern Baltic Lowlands, Berlin, Germany (invited keynote speaker)
- May 2017 International workshop on wildfire dynamics, Bozeman MT, USA (invited participant)
- April 2017 European Geosciences Union 2017 General Assembly (invited speaker)
- April 2017 Human-environment dynamics in the Peloponnese and beyond: Ideas – Methods – Results, Athens, Greece (invited participant)
- March 2017 Reconstructing Holocene Land Cover and Interactions with the Climate System (LandCover6k), Shijiazhuang, China (invited participant)
- January 2017 American Historical Association 2017 annual meeting (invited speaker)
- November 2016 International workshop on human dispersals in the Pleistocene, Max Planck Institute for the Science of Human History, Germany (invited participant)
- October 2016 International workshop: Modeling the Peloponnese: Assessing the history of land use and land cover, Uppsala University, Sweden (invited participant)
- September 2016 International workshop: Modeling Challenges for Sustainability, Kyoto, Japan (invited participant)
- June 2016 International workshop: CSDMS Human Dimensions Focus Research Group, Boulder CO, USA (invited participant)
- May 2016 Dynamics of socio-ecosystems on a changing Earth: sustainability or collapse? Chambery, France (invited keynote speaker)
- March 2016 Understanding the paleo-Anthropocene and the Anthropocene, Beersheva, Israel (invited keynote speaker)
- March 2016 The Agricultural Origins of Urban Civilization, Oxford, UK (invited speaker)
- December 2015 American Geophysical Union Fall Meeting 2015 (oral presentation)
- September 2015 Global Paleofire Working Group workshop, Harvard Forest, USA (invited participant)
- September 2015 3rd International Conference on Pedometrics, Cordoba, Spain (invited keynote speaker)
- September 2015 International workshop on Rice in Prehistory, London, UK (invited participant)
- May 2015 International workshop on Dynamic Global Vegetation Modelling, Landskrona, Sweden (invited participant)
- December 2014 American Geophysical Union Fall Meeting 2014 (three invited oral presentations)

- October 2014 Fire model Intercomparison Project (FireMIP) workshop, Garmisch-Partenkirchen, Germany (invited participant)
- September 2014 International Landscape Archaeology Conference, Rome, Italy (invited keynote speaker)
- April 2014 International Conference on Climate and Land Cover Change in the Mediterranean, Pylos, Greece (invited participant)
- February 2014 International Conference on Past Land Cover Change, Avignon, France (speaker)
- January 2014 International workshop on Grazing Systems, Vienna Austria (invited participant)
- November 2013 International workshop on the origins of farming in Europe, Berlin, Germany (invited participant)
- November 2013 International workshop on the environmental history of the Mekong Basin, Ho Chi Minh City, Vietnam (invited participant)
- September 2013 International workshop on modelling forest age structure (invited participant)
- June 2013 International summer school on climate dynamics, Pylos Greece (invited lecturer)
- June 2013 International summer school on the Anthropocene (lecturer)
- April 2013 European Geosciences Union General Assembly 2013 (invited oral presentation)
- December 2012 American Geophysical Union Fall Meeting 2012 (invited oral presentation)
- August 2012 IGBP Integrated History of People on Earth (IHOPE) (speaker)
- April 2012 European Geosciences Union General Assembly 2012 (oral presentation)
- March 2012 European Project ECOCHANGE final symposium (oral presentation)
- February 2012 COST Action TERRABITES 2nd Symposium (two oral presentations)
- August 2011 IGBP Integrated History of People on Earth (IHOPE) (speaker)
- July 2011 PAGES Land use and Climate Impacts on Fluvial Systems (LUCIFS) (speaker)
- July 2011 XVIII International Quaternary Association (INQUA) Congress (2 presentations)
- June 2011 Carbon Management in British Columbia Forests (speaker)
- May 2011 Regional Earth System Modeling and Analysis, Beijing, China (speaker)
- March 2011 AGU Chapman Conference on *Climates, Past Landscapes and Civilizations* (keynote speaker)

Selected invited seminar presentations in recent years

- June 2024 Department of Earth and Planetary Sciences, Harvard University
- January 2024 Department of Earth Energy and Environment, University of Calgary
- September 2021 School of Biological Sciences, The University of Hong Kong
- June 2021 Quantitative History Webinar Series, Asia Global Institute, The University of Hong Kong
- October 2020 School of Classics and the Centre for Ancient Environmental Studies, University of St. Andrews, UK
- September 2019 Royal Geographical Society, Hong Kong
- December 2018 Institute of Geography, Augsburg University
- June 2018 Environmental Change Institute, University of Oxford, UK
- May 2018 Oriel College, University of Oxford, UK
- March 2018 Department of Earth Sciences, The University of Hong Kong
- December 2017 School of Geography, University of Glasgow, UK
- November 2017 Max Planck Institute for Biogeochemistry, Jena, Germany
- November 2017 Integrative Research Institute on Transformations of Human-Environment Systems, Humboldt University Berlin, Germany

October 2017	Environmental Change Institute, University of Oxford, UK
October 2017	Lamont-Doherty Earth Observatory, Columbia University, U.S.A.
September 2017	Department of Archaeology, Max Planck Institute for the Science of Human History, Jena, Germany
September 2017	Institute of Geography, Augsburg University, Germany
February 2017	Institute of Geography, Ludwig Maximilian University, Munich, Germany
January 2017	Departments of Earth Sciences and Geography, University of Arizona, USA
December 2017	Faculty of Humanities, VU University Amsterdam, The Netherlands
September 2016	Department of Physical Geography & Ecosystem Science, Lund University, Sweden
May 2016	Department of Archaeology and Ancient History, Uppsala University, Sweden
March 2016	Dept. of Geography and Environmental Development, Ben-Gurion U., Beersheeva, Israel
February 2016	Oxford University Archaeological Society, Oxford, UK
February 2016	Institute of Geological Sciences, Freie Universitaet Berlin, Germany
December 2015	Climate Change Research Centre (CCRC), University of New South Wales, Australia
December 2015	Department of Geography, University of Sydney, Australia
November 2015	Department of Earth System Science, University of California, Irvine, USA
November 2015	Department of Earth Sciences, University of Pennsylvania, USA
October 2015	Department of Atmospheric Sciences, University of Wisconsin, USA
October 2015	Department of Geography, University of Wisconsin, USA
October 2015	Departments of Geography and Earth Sciences, Dartmouth College, USA
September 2015	Department of Classics, University of Buffalo, USA
October 2014	Department of Forestry and Environmental Science, Yale University, USA
March 2015	Institute of Archaeology, University of Basel, Switzerland
April 2014	Senckenberg Biodiversity and Climate Research Center, Frankfurt, Germany
December 2013	Institute of Historical Landscape Dynamics (CLUE), VU Amsterdam, The Netherlands
November 2013	Department of Geography, National University of Singapore, Singapore
September 2013	CEREGE, UMR CNRS-Université Aix-Marseille, France
May 2013	Department of Geology, Gent University, Belgium
April 2013	Department of Geography, Plymouth University, UK
September 2012	Department of Geography, Hong Kong University, China

Research grant awards as Principal Investigator (PI) and Co-Investigator (Co-I)

NB all funding amounts have been converted from the currency in which they were awarded into USD

Current projects

Period	Title	Funder	Role	Amt. (\$)
2022-2028	<i>Quantitative History of China: Historical Roots of Recent Success and Future Development</i>	Research Grants Council of Hong Kong	Co-PI	6,658,468
2021-2023	<i>Feedbacks between land use, dust, climate, and societies in past, present, and future Africa (REDWIND)</i>	Research Grants Council of Hong Kong	Sole PI	85,468

2021-2025	<i>The impact of the Asian Monsoon on the carbon cycle – Terrestrial Ecosystem Evolution and Carbon cycle</i>	National Key Research and Development Program of China	Co-I	445,357
2021-2024	<i>Ice Age Chemistry and Proxies (ICECAP-4)</i>	United States National Science Foundation	Co-I	1,053,041
2021-2022	<i>Fossil-free energy or Fish? Timber or Biodiversity? The wicked problems of land use and land management in a changing world (teaching grant)</i>	Gallant Ho Foundation and HKU Faculty Experiential Learning Fund	PI	27,421

Past projects

Period	Title	Funder	Role	Amt (\$)
2018-2022	<i>Feedbacks between land cover, people, and climate in the seasonally arid tropics (MONSOON)</i>	Bundesministerium für Bildung und Forschung/DAAD	Sole PI	1,636,916
2019-2021	<i>Unmanned Aerial Vehicles: Bringing field-based learning into the 21st Century (teaching grant)</i>	HKU Science Faculty Teaching Innovation Fund	PI	14,047
2013-2018	<i>What role for humans in explaining the enigma of Holocene CO₂ and methane concentrations? (COEVOLVE)</i>	European Research Council	Sole PI	1,696,837
2014-2018	<i>Quantifying the economic and environmental transformation of Africa during the Iron Age (ACACIA)</i>	Swiss National Science Foundation	PI	502,012
2017-2020	<i>P2C2: ICE age Chemistry And Proxies (ICECAP-3) Investigating Fire Activity and its Implications for Climate Across Multiple Timescales</i>	United States National Science Foundation	Co-I	447,557
2017-2019	<i>Holocene Climate Reconstruction for the Northern Hemisphere Extra-tropics (HORNET)</i>	Swiss National Science Foundation	Co-I	622,865
2016-2019	<i>Nature and impacts of Middle Pleistocene volcanism in the Ethiopian Rift [on ecosystems and hominin evolution]</i>	The Leverhulme Trust	Co-I	223,926
2016-2019	<i>Effects of changes in climate and land use on U.S. dust and wildfire particulate matter</i>	United States Environmental Protection Agency	Co-I	500,000
2015-2018	<i>Domesticated landscapes of the Peloponnese: Social-environmental dynamics from the Final Neolithic to the Roman Era (4000 BCE-300 CE)</i>	Swedish Research Council	Co-I	1,244,369
2015-2018	<i>Understanding Fire-Human Dynamics Along a Forest-Steppe Ecotone</i>	United States National Science Foundation	Co-I	375,000
2013-2017	<i>CNH: Managing Impacts of Global Transport of Atmosphere-Surface Exchangeable Pollutants in the Context of Global Change</i>	United States National Science Foundation	Co-I	3,948,040

Period	Title	Funder	Role	Amt (\$)
2010-2017	<i>PIRE: Wildfire feedbacks and consequences of altered fire regimes in the face of climate and land-use change in Tasmania, New Zealand, and the western U.S.</i>	United States National Science Foundation	Co-I	1,502,550
2016	<i>The Ecology and Biogeochemistry of Human Subsistence in West Africa (1000 BC-AD 1500) (workshop grant)</i>	Fondation Herbetette	PI	6,668
2015	<i>Mapping the Iron Age in West Africa (workshop grant)</i>	Swiss National Science Foundation	Sole PI	11,941
2015	<i>Mapping the Iron Age in West Africa (workshop grant)</i>	PAGES (IGBP/Future Earth)	Sole PI	5,000
2012-2013	<i>Anthropogenic Interaction with the Earth System over the Holocene</i>	Swiss National Science Foundation	Sole PI	422,175
2011-2015	<i>P2C2: ICE age Chemistry And Proxies (ICECAP-2)</i>	United States National Science Foundation	Co-I	330,595
2010-2012	<i>Climate Change Adaptation Planning for Northwest Skeena Communities</i>	Future Forest Ecosystem Sciences Council of British Columbia	PI	273,594
2010-2012	<i>Mediterranean Land Cover Change over the Holocene: Integrating Models and Data</i>	Swiss National Science Foundation	PI	187,435
2010-2012	<i>Dynamic Wetland Modeling During Abrupt Climate Change (DyWet)</i>	Swiss Ministry for Research and Education	Sole PI	183,273
2008-2012	<i>Climate Amplifiers: From Sources of Terrestrial Aerosols and Nitrogen in Ecosystems to the Atmosphere</i>	Swiss National Science Foundation	Sole PI	1,686,592
2009-2011	<i>Amplificatori Climatici: dalle sorgenti di aerosols in ecosistemi terrestri all'Atmosfera (CASTANEA)</i>	Italian Ministry of Universities and Research	Sole PI	1,595,123
2009-2014	<i>The Terrestrial Biosphere in the Earth System (TERRABITES) COST Action ES0805</i>	COST (European Union)	Co-I	390,279
2008-2012	<i>Modelling and experiments on land-surface interactions with atmospheric chemistry and climate (MAIOLICA)</i>	ETH Domain Competence Centre in Environment and Sustainability	PI	2,178,967
2005-2008	<i>Application of space-based technologies to examine land-cover/land-use change along a transect on the Yamal Peninsula and Novaya Zemlya, Russia</i>	NASA (U.S.)	Co-I	732,794
2005-2008	<i>Investigation of the Effects of Land Cover Change on Chemistry-Climate Interactions</i>	NASA (U.S.)	Co-I	350,000
2005-2008	<i>Greening of the Arctic: Synthesis and models to examine the effects of climate, sea-ice, and terrain on circumpolar vegetation change</i>	United States National Science Foundation	Co-I	481,765

Period	Title	Funder	Role	Amt (\$)
	<i>Modelling Atmospheric Methane Measurements over Late Glacial through Holocene (MAMMOTH)</i>	Canadian Foundation for Climate and Atmospheric Science	PI	90,208
2003-2005	<i>Improving global and regional estimates of natural methane sources (Marie Curie Individual Fellowship)</i>	European Commission	Sole PI	203,624
2001	<i>Simplifying Computational Methods for Coupling Carbon Storage in Vegetation and Soil During Land Use Change</i>	New Zealand-Germany Intl. Science and Technology Linkages Fund	PI	3,380

Publications (*listed chronologically*)

~28,000 citations, h-index 77 (Google Scholar)

Peer-reviewed original research articles

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