

# PROFESSOR BENJAMIN PETER HORTON

Director of Earth Observatory of Singapore  
AXA Chair in Natural Hazards

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<https://earthobservatory.sg/research-group/sea-level-research-benjamin-horton>  
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I am the Director of the Earth Observatory of Singapore at Nanyang Technological University (NTU), Singapore. I am lead Principal Investigator of the Climate Transformation Program of Singapore. I have won several research awards from European Geosciences Union, American Geophysical Union, and Geological Society of America. I was an editor for the Intergovernmental Panel on Climate Change (IPCC) 6<sup>th</sup> Assessment Report. I have published over 260 articles in peer-reviewed journals, including Science, Nature, and Proceedings of the National Academy of Sciences. 20 of my graduate students or postdocs have academic positions. My h-index is 80 and I have >17,000 citations<sup>1</sup>. I have received >\$71 million of personal research funding.

## EDUCATION

1994 – 1998

**PhD in Geography, Durham University, UK.**

**Thesis title:** "Quantification of the indicative meaning of a range of Holocene sea-level index points from the western North Sea"

**Thesis supervisor:** Professor Ian Shennan

1989 – 1992

**BA Honors in Geography, University of Liverpool, UK.**

**Thesis title:** "The urban heat island of Sheffield"

**Thesis supervisor:** Professor Andy Moore

## PROFESSIONAL APPOINTMENTS

2023 – present

**Lead Principal Investigator of Tier 3c Climate Transformation Program (CTP)**

Nanyang Technological University, Singapore

CTP comprises more than 16 schools and 34 faculty who collaborate across many different disciplines at NTU, and the Institute of Higher Learning of Singapore (NUS, SIT, SMU, and SUTD) and research centres (NUHS and CNRS@CREATE). CTP will build upon intra- and inter-university synergies to consolidate research expertise in climate. Horton is the lead PI. He will formulate strategies to improve the

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<sup>1</sup> Google scholar <https://scholar.google.com/citations?user=f6uGyrEAAAAJ&hl=en>

interdisciplinarity of CTP, overcome environmental or structural challenges across disciplines and build collaborations Budget from 2023 to 2030 of ~\$50 million.

- 2020 – present**      **Director of the Earth Observatory of Singapore**  
**AXA-Nanyang Professor in Natural Hazards**  
 Nanyang Technological University, Singapore  
 Management and strategic oversight of the Observatory, which includes the finances, recruitment, appointment, remuneration, training, development, and welfare of the ~150 professors, researchers, staff, and graduate students of the Observatory. Budget from 2018 to 2023 of > \$180 million.
- 2018 – 2020**      **Chair of the Asian School of the Environment**  
 Nanyang Technological University, Singapore  
 Lead, manage and develop the school to ensure it achieves the highest possible standards of excellence in education and research. Exercise leadership, demonstrate vision, and empower others to deliver the agreed departmental strategy within the faculty of ~30 professors.
- 2013 – present**      **Professor of Earth Science**  
 Asian School of the Environment, Nanyang Technological University, Singapore.
- 2013 – 2017**      **Professor of Marine Science**  
 Department of Marine and Coastal Sciences, Rutgers University, USA.
- 2004 – 2013**      **Associate and Assistant Professor of Earth and Environmental Science**  
 Department of Earth and Environmental Science, University of Pennsylvania, USA.
- 1998 – 2004**      **Lecturer in Geography**  
 Department of Geography, Durham University, UK.

### **CONSULTANCY (LAST 3 YEARS)**

- 2020 – present**      **Analysis Group**  
**Climate and sea level rise analysis for the United States**
- 2022 – present**      **Chanel Inc and Foundation Chanel**  
**Climate analysis for Southeast Asia**
- 2021 – present**      **Kingdom of Saudi Arabia**  
**Climate and sea level rise analysis for the Red Sea and Arabian Gulf**
- 2021 – 2022**      **Straits Trading Company**  
**Climate and sea level rise analysis for Malaysia**
- 2022**      **Schneider Electric**  
**Climate and sea level rise analysis for Southeast Asia**
- 2022**      **Volvo Group Singapore**  
**Climate and sea level rise analysis for Southeast Asia**

## HONORS AND AWARDS

- Mentor for the Commonwealth Futures Climate Research Cohort (2021).
- AXA-Nanyang Professor in Natural Hazards (2020).
- Fellow of NTU Institute of Science and Technology for Humanity (2020).
- Member of World Climate Research Programme Grand Challenge on Regional Sea Level Change and Coastal Impacts (2020).
- Nanyang Technological University President's Chair in Earth Sciences (2019).
- Geological Society of America Frye Award (2019).
- Fellow of the American Geophysical Union (2018).
- Inducted into the World Class Professor Program by the *Directorate of Higher Education of Indonesia* (2018).
- Fellowship at the Institute of Advanced Studies of the Alma Mater Studiorum University of Bologna (2018).
- Visiting Professor, Department of Marine and Coastal Sciences, Rutgers University, USA (2017).
- Councilor for Marine Geoprocesses (2016-2020) for the American Quaternary Association (AMQUA).
- Plinius Medal of the *European Geosciences Union* (2016).
- Voyager Award of the *American Geophysical Union* (2014).
- Denis and Jean Wiesenburg Distinguished Lecture in Ocean Science (2014).
- Fellow of the Geological Society of America (2013).
- American Geophysical Union Outstanding Reviewer Award (2012)
- Fellow of the University of Pennsylvania (2012).
- Medal for Research Excellence by the Commanding General of the North Atlantic Division of the *United States Army Corps of Engineers* (USACE) (2010).
- The W. Storrs Cole Memorial Research Award of the *Geological Society of America* (2007).
- Honorary Research Fellow, Department of Geography, *University of Durham*, UK (2004).
- The Linnean Society (UK) Award for contributions to biological diversity and evolution (2004).
- The Higher Education Funding Council for England Excellence in Teaching Award (2003).
- Menzies Australian Bicentennial Award for promoting scholarship, intellectual links, and mutual awareness and understanding between the United Kingdom and Australia (2001).

## MAIN ACHIEVEMENTS

- Review Editor (RA) to the Intergovernmental Panel on Climate Change (IPCC) 6th Assessment Report (2018-2021).
- Research cited by President Obama in his 2015 State of the Union Address at the United States Capitol on 20<sup>th</sup> January 2015 and tweeted by President Obama on 1<sup>st</sup> March 2016.
- Awards from *European Geosciences Union* (Plinius Medal 2016), *American Geophysical Union* (Voyager Award 2014) and the *Geological Society of America* (W. Storrs Cole Memorial Research Award 2007).
- Fellow of the *Geological Society of America* (2013) and Fellow of the American Geophysical Union (2018).

- Published over 260 articles in peer-reviewed journals, including ~40 articles in high profile journals such as *Science*, *Nature*, and *Proceedings of the National Academy of Sciences*.
- Principal Investigator of the Climate Transformation Program of Singapore (2023)
- Supervisor to 28 students to the degree of PhD and 24 postdoctoral scientists, of which 20 now occupy permanent academic positions including Head of Department, Center Directors, and Full Professors.
- Uninterrupted external support of research program from 2004 to 2023, which totals >SG\$71 million, including TWO Academic Research Fund (AcRF) Tier 3 Grants.
- Developed a new quantitative approach to reconstruct former sea-level changes.
- Established the Holocene sea-level database for the Atlantic and Pacific coasts of the North America, Africa, Caribbean, Northwestern Europe, Malay-Thai Peninsula, Russia, Singapore and United Kingdom.

## COMMITTEES

- Program Advisor to the UK Centre for Ecology & Hydrology's (UKCEH) National Capability (NC) - International Programme (2023-present).
- Member of World Climate Research Programme's Grand Challenge of on Regional Sea Level Change and Coastal Impacts (2020-2022).
- Review Editor (RA) to the Intergovernmental Panel on Climate Change (IPCC) 6<sup>th</sup> Assessment Report (2018-2021).
- AMQUA Council as a Councilor for Marine Geoprocesses (2016-2020).
- European Geosciences Union awards and medal committee (2016 to 2020).
- Editorial board the of Anthropocene (2014-present).
- Associate Editor of Current Climate Change Reports (2014-present).
- Guest Editor of a Quaternary Science Reviews Special Publications (2009, 2012, 2014, 2019).
- Associate Editor of Journal of Foraminiferal Research (2008-2014).
- Member of the PALSEA (PALeo-constraints on SEA-level rise) steering committee (2010-present).
- Advisory board member of International Union for Quaternary Science (INQUA)'s Commission for Coastal and Marine Processes (2011-present).
- Contributing Author (CA) to the Intergovernmental Panel on Climate Change (IPCC) 5<sup>th</sup> Assessment Report (5AR) Working Group I and Expert Reviewer for Working Group III (2011-2013).
- Project leader of International Geoscience Programme (IGCP) 588 'Preparing for coastal change: A detailed process-response framework for coastal change at different timescales' (2010-2014).
- Scientific advisor to The Future Ocean research of the German Research Foundation (2010-2014).
- Member of the Review Panel for the Helmholtz Program Geosystem: the changing Earth (2009-2013).
- Joint Chair of American Quaternary Association (AMQUA) Biennial Meeting 'Quaternary Ice Sheet-Ocean Interactions and Landscape Responses' (2008).

- Joint Convener of the Geological Society of America's Pardee Keynote Symposia Holocene Sea-level Change in North America: A Post-Katrina Assessment (2006).
- Committee member of the National Research Council, USA for Sea Level Rise in California, Oregon, and Washington (2011-2012).
- Delaware Sea Level Rise Projections Panel (2017). Report won the 2019 Geological Society of America (GSA) Frye Award.
- New Jersey Sea Level Rise Projections Panel (2015).
- Maryland Sea Level Rise Projections Update Panel (2013).

### **ACADEMIC/ADMINISTRATIVE/LEADERSHIP SERVICE (LAST 3 YEARS)**

- 2023 Chair of the Promotion and Tenure Committee in the Asian School of the Environment.
- 2022 Member of the Search Committee convened by the University to seek the appointment of Dean, Nanyang Business School.
- 2022 Member of the Nanyang Awards Selection Committee for Nanyang Research Award and Nanyang Research Award (Young Investigator).
- 2022 Member of the School Review Committee for Promotion and Tenure in the Asian School of the Environment.
- 2022 Member of the Search Committee convened by the School to seek the appointment of Chair, School of Art, Design and Media (Full Professor).
- 2022 Chair of the Search Committee for the position of Professor and Chair at the Asian School of the Environment (ASE).
- 2021 Selection Committee (Nanyang Research Award and Nanyang Research Award (Young Investigator)).
- 2021 Facilitator-Panel #7: Science communication policies for different stakeholders.
- 2021 NTU Leadership Review Meeting for MOE Tier 3 Full Proposal 2021.
- 2021 Member of International Strategy Taskforce (Structures for Internationalisation at NTU).
- 2021 NTU's NRF Fellowship Internal Committee.
- 2021 NTU's Internal Selection Committee for the 2021 Lee Kuan Yew Postdoctoral Fellowship (LKY-PDF).
- 2020 NTU Academic Forum.
- 2020 University Academic Forum (UAF).
- 2020 Mentor to Fidel Costa and Emma Hill, Full and Associate Professors.
- 2020 Member of SVPR Council Meeting.
- 2020 University Leadership Forum (ULF).
- 2020 Member of the EOS Audit Committee.
- 2020 Member of the EOS Governing Board Meeting.
- 2020 Member of NTU 2025 Sustainability Committee.

### **NEWS ARTICLE, MEDIA MENTIONS & APPEARANCES (MARCH 2022 TO MARCH 2023)**

5-Mar-23, Protecting the High Seas, CNA Singapore Tonight.

- 28-Feb-23, Research claims prehistoric human migration in Southeast Asia driven by sea-level rise, The States Man.
- 26-Feb-23, MoneyFM – Antarctica.
- 22-Feb-23, CNA Live - Research team from NTU journeys to Antarctica to study rising sea levels.
- 21-Feb-23, Research team from NTU journeys to Antarctica to study rising sea levels, YouTube, CAN.
- 20-Feb-23, Research claims prehistoric human migration in Southeast Asia driven by sea-level rise, Devdiscourse.
- 20-Feb-23, Research claims prehistoric human migration in Southeast Asia driven by sea-level rise, ANI.
- 20-Feb-23, What does the return of El Nino mean for the planet – and you?
- 7-Feb-23, [Expert comments] NTU news - Sea-level rise drove sea early settlers to migrate study.
- 7-Feb-23, Prehistoric human migration in Southeast Asia driven by sea-level rise, NTU Singapore study reveals, Terra Daily, Australia.
- 6-Feb-23, Prehistoric human migration in Southeast Asia driven by sealevel rise, Science Daily, USA.
- 1-Feb-23, Forget Cows and Almonds—Lab-Grown Dairy Is the Future of Milk, Yahoo.
- 1-Feb-23, Forget Cows and Almonds—Lab-Grown Dairy Is the Future of Milk, Daily Beast.
- 10-Jan-23, Solving the hole in the ozone layer provides a framework for countering climate change: Analyst, CAN.
- 23-Dec-22, On water: A community for change, ONE°15 Marina Sentosa Cove.
- 17-Dec-22, Universities play key role in tackling rising sea levels, University World News.
- 10-Dec-22, Weekends: “Polar Impact Asia” Documentary, Glenn van Zutphen on Saturday morning.
- 24-Nov-22, Indonesia Earthquake Takes a Heavy Toll on Children, Silknews.
- 24-Nov-22, An Earthquake Took a Heavy Toll on Children. Shoddy Construction Could Be to Blame, The New York Times, USA.
- 24-Nov-22, An Earthquake Took a Heavy Toll on Children. Shoddy Construction Could Be to Blame, DNYUZ.
- 24-Nov-22, An Earthquake Took a Heavy Toll on Children. Shoddy Construction Could Be to Blame, Leichtathletik Nachrichten.
- 24-Nov-22, An Earthquake Took a Heavy Toll on Children. Shoddy Construction Could Be to Blame, Kazumilk.
- 24-Nov-22, An Earthquake Took a Heavy Toll on Children. Shoddy Construction Could Be to Blame, 2chnewNews.
- 9-Nov-22, Climate Change affects globally - A new film shows the connection between the Tropics and the Arctics, uit.no.
- 7-Nov-22, Compensation On The Agenda, CNA.
- 2-Nov-22, Arctic data could help NTU scientists better predict rising sea levels in S’pore, The Straits Times.
- 2-Nov-22, COP27: calls for financial help come amid weak climate action, Eco-Business.

- 2-Nov-22, Arctic data could help NTU scientists better predict rising sea levels in S'pore, Newsnav, Malaysia.
- 2-Nov-22, Arctic data could help NTU scientists better predict rising sea levels in S'pore, NewsExplorer, USA.
- 1-Nov-22, ST commentary - Arctic data could help NTU scientists better predict rising sea levels in S'pore
- 28-Oct-22, Can degrowth save us from destruction? The Business Times.
- 20-Oct-22, NTU's Earth Observatory of S'pore launches 2 anime episodes to highlight youths hold key to solving environmental issues, Mothership.sg
- 12-Oct-22, In Practicec: Superflux, Architectural Review.
- 11-Oct-2022, What if East Coast Park and other coastal areas in Singapore go under water? The Straits Times.
- 11-Oct-2022, What if East Coast Park and other coastal areas in Singapore go under water?, Coastal News Today.
- 1-Oct-22, MoneyFM - Climate change discussion on Hurricane Ian.
- 30-Sep-22, South China Morning Post - 5 in a month: What's fanning the spate of superstorms this September.
- 27-Sep-22, CNA Explains: Typhoons and hurricanes – what's the difference and how are they named?
- 22-Sep-22, (Live interview) Newsday, BBC World News, South-east Asian coastal cities 'sinking'.
- 21-Sep-22, (Live studio interview) Singapore Tonight, CNA, Asia's sinking cities.
- 30-Aug-22, CNA Interview Request - Pakistan Flood.
- 4-Aug-22, Start-up plans 2500 artificial coral reefs to fight climate change, New Scientist, USA.
- 25-Jul-22, Op-Ed: Record-breaking heat waves around the world prove climate change is already here - Op-ed initiated by CCO.
- 24-Jul-22, Impacts of the climate crisis accentuate geopolitical challenges in Southeast Asia - Due to geographic and socioeconomic factors, the region is one of the most vulnerable to rising sea levels.
- 22-Jul-22, Science Talk: Record-breaking heatwaves show climate change is already here, The Straits Times.
- 21-Jul-22, A world heating up, The Straits Times.
- 20-Jul-22, What is the cause of heat waves around the world and is Singapore also affected?, Berita Harian.
- 20-Jul-22, What is the cause of heat waves around the world and is Singapore also affected?, NIE.
- 19-Jul-22, Explainer: What is causing heatwaves around the world and will Singapore be affected?
- 12-Jul-22, S\$23.5m research programme launched to look at long-term impact of climate change on S'pore, Today.
- 30-Jun-22, Straits Trading's fifth act, The Edge, Singapore.
- 18-Jun-22, Augmented reality tour imagines parts of Singapore under water in 2122.
- 11-Jun-22, Dataset Reveals Singapore's Sea-Level History over 10,000 Years, Open Gov, International.

- 6-Jun-22, Green Pulse Podcast: How humans are changing the oceans, The Straits Times.
- 6-Jun-22, Podcast on Green Pulse Podcast: How humans are changing the oceans, The Straits Times.
- 25-May-22, Podcast on the role of oceans in moderating climate.
- 24-May-22, Explainer: APAC at 1.5°C of global warming, Eco-Business, Singapore.
- 20-May-22, Tipping points: how close is the world to a climate calamity domino effect? Eco-Business, Singapore.
- 12-May-22, From Singapore to Svalbard (Svalbard Posten).
- 9-May-22, Podcast on Politicians continue to fail on climate; we must fight for a liveable future.
- 9-May-22, The Big Read: Without fanfare, a 40-strong team is laying the groundwork to save S'pore from sea level rise.
- 24-Apr-22, More climate-focussed journalism needed, Borneo Bulletin, Malaysia.
- 4-Apr-22, Above the Water: Sea Science, Asian Geographic.
- 14-Mar-22, From watering drones to flood-water tunnels: Different approaches to climate adaptation in South-east Asia, The Straits Times.
- 9-Mar-22, Benjamin Horton on Sustainability, Ethiroli.
- 7-Mar-22, South-east Asia among regions hardest hit by climate change, must prioritize adaptation: IPCC.
- 4-Mar-22, Can we save coral reefs?, Mongabay.
- 3-Mar-22, Southeast Asia is one of the regions hardest hit by climate change, VTV, Vietnam.
- 2-Mar-22, Southeast Asia hard hit by climate change, Phnom Penh Post, Cambodia.
- 1-Mar-22, S-E Asia among regions hardest hit, must prioritise adaptation: Report, The Straits Times, pages A14 – A15.
- 1-Mar-22, (Live interview) CNA: Confronting the Climate Crisis, Asia First.

### **GRADUATE STUDENTS SUPERVISED (N=28)**

- Nanyang Technological University: Tan Fang Yi (PhD, 2019 to present), Christabel Tan Wan Jie (PhD, 2020 to present), Yudhishthra Nathan (PhD, 2020 to present), Trina Ng (2021 to present), Toh Yun Fann (PhD 2023 to present).
- Rutgers University: Kristen Joyse (PhD 2017 to 2022), Isabel Hong (PhD 2019), Jennifer Walker (PhD 2019), Chen Huixian (PhD 2019), Erica Ashe (PhD 2018).
- University of Pennsylvania: Andrea Hawkes (PhD, 2008), Chris Bernhardt (PhD 2009), Andrew Kemp (PhD 2009), Simon Engelhart (PhD 2009), Candace Grand Pre (PhD 2011), Simin Liu (MSc 2012). Nicole Khan (PhD 2013), Tina Dura (PhD 2014).
- University of Durham: Matt Brain (PhD 2006), Sarah Woodroffe (PhD 2006), Caroline Hillier (PhD 2007), Katie Thomson (PhD, 2009), Mike Hardbattle (MSc 2004), Simon Engelhart (MSc, 2005).
- Others: Andrew Parnell (PhD 2005), University of Sheffield, UK; Andrew Berkeley (PhD 2006), Manchester Metropolitan University, UK; Anthony Brooks (PhD 2007), Trinity College Dublin; Veronica Rossi (PhD 2008), University of Bologna, Italy.



## EXTERNAL COMMITTEE MEMBER OR EXAMINER (N=9)

- Jędrzej Majewski (PhD), NTU, Singapore; Jacqueline McSweeney (PhD), Rutgers, USA; Heidi Romine (PhD), Virginia Institute for Marine Science, USA; Kevin Burdette (MRes), Candace Grand Pre (MRes), Mary Metger, (MRes), East Carolina University, USA; Lucia Perez-Belmonte (PhD) Universite Bretagne Sud, France; Niamh Cahill (PhD), University College Dublin, Ireland; Nicole Leonard (PhD), University of Queensland, Australia.

## POST-DOCTORAL SCHOLARS SPONSORED (N=24)

- Tanghua Li (2019 to present), Huixian Chen (2019 to present), Dhruvajyoti Samanta (2020 to present), Stephen Chua Chong Wei (2020 to present); Wenshu Yap (2022 to present).
- Caroline Hillier (2004-2005), Andrew Kemp (2009-2013), Simon Engelhart (2010-2013), Yvonne Milker (2012-2014), Jessica Pilarczyk (2011-2015), Jennifer Clear (2015-2017), Tina Dura (2015 to 2017), Ane García Artola (2015 to 2018), Andra Garner (2016 to 2019) Peter Parham (2017 to 2019), Nicole Khan (2018 to 2019), Qiu Qiang (2019), Keven Roy (2017 to 2019), Margaret Christie (2017 to 2019), Isabel Hong (2020), Geoff Richards (2019 to 2022), Kristen Joyse (PhD 2022 to 2023), Tim Shaw (2014 to 2023), Jędrzej Majewski (2018 to 2023).

## ACADEMIC EMPLOYERS AND THEIR ROLE OF GRADUATE STUDENTS AND POST-DOCTORAL SCHOLARS (N=20)

**Center Director:** Chris Bernhardt (United States Geological Survey).

**Head of Department:** Jennifer Clear (Liverpool Hope University).

**Professors:** Andrew Parnell (The National University of Ireland, Maynooth); Andrea Hawkes (University of North Carolina, USA).

**Associate Professors:** Simon Engelhart (University of Rhode Island, USA; Durham University UK); Sarah Woodroffe (Durham University UK); Andrew Kemp (Tufts University, USA).

**Assistant Professors/Lecturers:** Matt Brain (Durham University, UK); Margaret Christie (McDaniel); Tina Dura (Virginia Tech, USA); Ane García Artola (University of Basque Country, Spain); Andra Garner (Rowan, USA); Isabel Hong (Villanova, USA); Nicole Khan (Hong Kong University); Yvonne Milker (University of Hamburg, Germany); Jessica Pilarczyk (Simon Fraser University, Canada); Qiu Qiang (Chinese Academy of Science); Veronica Rossi (University of Bologna, Italy); Jennifer Walker (Rowan, USA); Chen Huixian (Sun Yat-Sen University).

## MAJOR RESEARCH GRANTS

Total funds awarded to Horton from 2004-2022 is **SG\$71,381,564**.

## MINISTRY OF EDUCATION, SINGAPORE

### Current

- Tier 3c. Climate Transformation program (CTP); PI; 45,900,000; 2023-2029.
- Tier 3c. Supplementary; PI; \$1,153,173.97; 2023-2026.
- Tier 3a. Southeast Asia SEA-Level program (SEA<sup>2</sup>); PI; \$9,248,343; 2020-2025.
- Tier 2. Relative sea-level changes along the Northern Sea Route: from patterns and rates to drivers and mechanisms; PI; \$654,140; 2021-2024.

- Tier 2. The contribution of solid Earth deformation to sea-level change; PI; \$471,500; 2018-2021.

#### **Previous**

- Tier 1. Reconstruction of Holocene sea level using rock-encrusting oysters and coral microatolls; PI; \$98,986 2018-2020.
- Reconstructing rates and magnitudes of Holocene sea-level change from Southeast Asia; PI; \$274,006; 2017-2019 [awarded through the Earth Observatory of Singapore].
- Optimal use of local and global constraints in the development of high-quality models of sea level evolution in Southeast Asia; PI; \$139,000; 2018-2020 [awarded through the Earth Observatory of Singapore].

### **NATIONAL RESEARCH FOUNDATION, SINGAPORE**

#### **Current**

- National Sea Level Program; PI; Driving mechanisms of past and present sea-level change to quantify projection uncertainties \$1,286,306; 2021-2024.
- National Sea Level Program; Co-PI; Novel framework for probabilistic sea-level projections for Singapore and surrounding regions; \$512,959; 2021-2024

#### **Previous**

- NRF Singapore International Collaborative Fellowship for the Commonwealth; mentor; \$250,000; 2018-2020.

### **OTHER SINGAPORE FUNDING BODIES**

- *Public Utilities Board*. Co-PI; Baseline data collection and projections of the impacts of Climate Change on Singapore's offshore water resources; S\$2,499,380; 2023-2026.
- *Monetary Authority of Singapore*. Co-PI. GAIP Climate Impacts Initiative. S\$802,000; 2023-2026.
- *Marine Climate Change Science (MCCS) Programme*. Co-PI. Assessing the long-term viability of nature-based climate solutions to future sea level rise and marine heatwaves in Singapore. \$S1,434,940. 2023-2026.

### **UNITED STATES NATIONAL SCIENCE FOUNDATION**

- Paleoseismic evidence of earthquakes and tsunamis along the southern part of the Japan Trench; Co-PI; US\$143,401; 2017-2020
- Quantifying Megathrust Earthquake Ruptures with Coastal Stratigraphy and Tsunami Simulations, South-Central Chile; PI; US\$258,061; 2017-2020.
- Heterogeneous Rupture of Great Cascadia Earthquakes Inferred from Coastal Subsidence Estimates; Co-PI; US\$129,503; 2015-2019.
- Geomorphic and sedimentary impacts of Hurricane Irma; PI; US\$29,946; 2017-2018.
- Sea-level variability during the Common Era; PI; US\$255,428; 2015-2017.
- Sea-level rise and salt-marsh response: a paleo perspective; PI; US\$113,517; 2013-2017.

- RAPID: Tsunami deposits and coastal uplift near Concepción, Chile before and after the Mw8.8 earthquake of February 27, 2010; Co-PI US\$21,750; 2015-2017.
- RAPID: Environmental impacts of Cyclone Pam on Vanuatu: implications for long-term cyclone and tsunami records for the South Pacific; Co-PI US\$17,799; 2015-2016.
- Subduction Zone Segmentation over Multiple Seismic Cycles, South-Central Chile; Co-PI; US\$172,726; 2012-2016.
- RAPID: Typhoon Haiyan – environmental impacts on the Philippines; PI; US\$20,018; 2014-2016.
- Relative sea-level changes from near-, intermediate- and far-field locations and their implications for geophysical modeling and 20th century ice sheet-ocean interactions; PI; US\$136,571; 2011-2014.
- EARly-concept Grants for Exploratory Research (EAGER): Geologic evidence of tsunamis originating from the Japan Trench’s southern segment; PI; US\$31,970; 2013-2014.
- Millennial-scale records of sea-level change along the Atlantic coast of the United States; PI; US\$164,684; 2011-2013.
- RAPID: Connecting the historic 2011 Mississippi River flood to marsh sedimentation on the Delta; Co-PI; US\$24,000; 2011-2012.
- Holocene sea-level change from the Caribbean: implications for geophysical modeling and ocean-climate interactions; Collaborator; US\$39,285; 2010-2012.
- Luquillo Critical Zone Observatory; Co-PI; US\$294,007; 2009-2014.
- Megathrust Paleogeodesy at the central Cascadia subduction zone; PI; US\$233,086; 2009-2012.
- A Paleoseismic Record of Great Earthquakes on the Sunda Subduction Megathrust, Northern Sumatra; Co-PI; US\$200,502; 2007-2012.
- Sea-level changes along the Atlantic Coast of the United States: Implications for glacial isostatic adjustment models and current rates of sea-level change; PI; US\$131,019; 2007-2010.
- RAPID: Examining the evidence for a recent acceleration in the rate of sea-level rise using combined instrumental and proxy data, Morbihan Golfe, Brittany France; PI; US\$10,080; 2007-2008.
- Indian Ocean Tsunami – Environmental and socio-economic impacts on the Malay-Thai Peninsula; PI; US\$68,282; 2005-2006.

### **OTHER UNITED STATES FUNDING BODIES**

- *Community Foundation of New Jersey*. Investigating Changing Flood Risks for the U.S. Atlantic Coast; PI; US\$100,000; 2016-2019.
- *Muschett Family Foundation*. Raritan River Sediment Chemistry Study; PI; US\$36,855; 2017-2019.
- *Environmental Protection Agency*. New Jersey Wetlands Past, Present and Future: Using Sediment Archives to Inform and Guide Wetland Protection, Restoration and Resilience; PI; US\$74,792; 2014-2017.

- *National Oceanographic Atmospheric Administration*. Advanced regional and decadal predictions of coastal inundation for the U.S. Atlantic and Gulf coasts; PI; US\$1,503,828; 2011-2015.
- *United States Geological Survey National Earthquake Hazards Reduction Program*. Paleoseismology of Sanak Island: collaborative Proposal with USGS; PI; US\$ 29,064; 2014-2015.
- United States Geological Survey. Earthquake and tsunami hazards in the eastern Aleutian Islands; PI; US\$12,000; 2012-2013.
- *National Aeronautics and Space Administration*. Global Sea Level in a Changing Climate: Reference Frames, Data Analysis, and Interpretation; PI; US\$98,002; 2010-2012.
- *Department of Energy: The National Institute for Climatic Change Research*. Hurricane erosion of east coast salt marshes during the past 2500 years; PI; US\$78,186; 2009-2012.
- *Earthwatch Student Challenge Awards Program*. Is Sea Level Rising? PI; US\$68,271; 2007-2011.
- *United States Geological Survey*. High-resolution sea-level rise studies, Mid-Atlantic Bight, USA; PI; US\$15,100; 2010-2011.
- *United States Geological Survey/North Carolina Cooperative Research Program*. Late Quaternary relative sea-level changes, Outer Banks, North Carolina; PI; US\$30,000; 2005-2008.
- *United States Geological Survey*. Subduction-zone paleogeodesy at Cascadia; PI; US\$25,039; 2006-2007.
- *National Oceanographic Atmospheric Administration*. Shore-Zone Dynamics in Response to Sea-level Rising North Carolina Estuaries; Co-PI; US\$90,244; 2005-2008.

## OTHER FUNDING

International Geoscience Programme (IGCP) 588; British Geological Survey University Funding Initiative; Port Authority of New York & New Jersey; Department of Environment and Conservation, New South Wales, Australia; Dawai Foundation award/Geological Survey of Japan. National Environmental Research Council, UK, Engineering and Physical Sciences Research Council, UK; Operation Wallacea Ltd; Associazione Nazionale Addestramento Professionale, Italy; European Union.

## PUBLICATIONS

### PUBLICATIONS IN HIGH-IMPACT JOURNALS (GRADUATE STUDENTS/POSTDOCTORAL SCIENTISTS SUPERVISED/SUPERVISING ARE UNDERLINED)

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**PUBLICATIONS IN OTHER PEER-REVIEWED JOURNALS (GRADUATE STUDENTS/POSTDOCTORAL SCIENTISTS SUPERVISED/SUPERVISING ARE UNDERLINED)**

40. Daly, P., Nejad, A., Domijan, K., McCaughey, J., Brassard, C., Kathiravelu, L., Marques, M., Sarti, D., Parnell, A., **Horton, B.P.**, in press. The socio-economic impacts of the COVID-19

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