# UNESCO - IOC INTERNATIONAL TSUNAMI INFORMATION CENTRE (ITIC)

# ITIC TRAINING PROGRAMME (ITP-TEWS-Hawaii) TSUNAMI EARLY WARNING SYSTEMS AND THE PACIFIC TSUNAMI WARNING CENTER (PTWC) ENHANCED PRODUCTS, TSUNAMI EVACUATION PLANNING AND UNESCO IOC TSUNAMI READY PROGRAMME

15-26 September 2025, Honolulu, Hawaii USA

#### ITP-TEWS-Hawaii 2025 - SPEAKER AND RESOURCE PERSON BIOGRAPHIES

#### INTERNATIONAL TSUNAMI INFORMATION CENTRE

#### DR. LAURA S. L. KONG

Director, UNESCO/IOC – NOAA International Tsunami Information Center (ITIC) 1845 Wasp Blvd, Bldg 176, Honolulu, HI, 96818, E-mail: laura.kong@noaa.gov

Dr. Kong has been the Director of the ITIC since 2001. As Director, she oversees a Centre that supports the Intergovernmental Oceanographic Commission in its efforts to deploy tsunami warning and mitigation systems globally, and that works directly with the 46-nation Intergovernmental Co-ordination Group for the Pacific Tsunami Warning and Mitigation System to strengthen national tsunami warnings and preparedness. In this capacity, the ITIC works closely with the USA Pacific and National Tsunami Warning Centers, Japan Meteorological Agency NWPTAC and other Tsunami Service Providers, and national tsunami warnings centres. The ITIC has been primary provider of information and expertise for technology transfer, awareness, training and capacity building in tsunami warning and mitigation for the IOC. Since the 2004 Indian Ocean tsunami, Dr. Kong has been actively involved as part of the IOC's coordination and development of systems in the Indian Ocean, the Caribbean and adjacent regions, and Mediterranean Seas and the north Atlantic Ocean. ITIC is the primary developer of IOC trainings conducted globally on tsunami warning and emergency response standard operating procedures (IOC MG 76) and tsunami evacuation planning (TEMPP, IOC MG 82). Currently, ITIC-CAR and ITIC lead efforts to implement the UNESCO/IOC Tsunami Ready Recognition Programme in the Caribbean and Pacific, and Dr. Kong is the inaugural Chair of the IOC Special Coalition on Tsunami Ready. Dr. Kong also supports the efforts of the ITU/WMO/UNESCO IOC Joint Task Force on SMART Subsea Cables as a co-Chair of its Science and Society Committee. Within the United Sates, serves as the Hawaii State Tsunami Advisor, and supports the US National Tsunami Hazard Mitigation Program. She is the former Chair of the Hawaii State Earthquake Advisory Committee. Previously, she was with the Pacific Tsunami Warning Center, the University of Hawaii's Hawaii Institute of Geophysics, the U.S. Geological Survey's Hawaiian Volcano Observatory, and the University of Tokyo's Earthquake Research Institute. She is a graduate of Brown University and received PhD from the Massachusetts Institute of Technology and Woods Hole Oceanographic Institution in 1990.

# CHRISTA VON HILLEBRANDT-ANDRADE

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Christa von Hillebrandt-Andrade is the Deputy Director of the ITIC and Manager its Caribbean Office in Mayagüez, Puerto Rico. Before joining the National Weather Service (NWS), she served as the Director of the Puerto Rico Seismic Network from 1994-2010. Her research and

operational experience spans from the detection and analysis of earthquakes and tsunamis, risk assessment, warning, and awareness and preparedness with a focus on the Caribbean and Latin America. She has served as an instructor and trainer for tsunami, seismic and sea level training courses and a NWS media contact point for tsunamis. She began the implementation of the US TsunamiReady® program in Puerto Rico in 2006 and since 2011 promoted and supported efforts towards the establishment of the UNESCO/IOC International Tsunami Ready Recognition Programme. She has actively participated in the TR designation/renewal of 49 communities in Puerto Rico and the US Virgin Islands and 12 other communities in Caribbean and Central America. Through ITIC-CAR she has supported the coordination of the Annual Caribbean wide tsunami exercise. CARIBE WAVE with hundreds of thousands of participants since 2011, von Hillebrandt-Andrade has participated in all seventeen sessions of the UNESCO IOC Intergovernmental Coordination Group for the Tsunami and other Coastal Hazards Warning System for the Caribbean Sea and Adjacent Regions (CARIBE EWS) since it was established in 2006 and served as its Chair (2012-2018). She currently leads its Working Group 3 on Tsunami Warning Dissemination and Communication. She is also a member of the Scientific Committee for the Ocean Decade Tsunami Program and the IOCARIBE Ocean Decade Task Force. She was President of the Seismological Society of America from 2011-2013. Christa von Hillebrandt-Andrade was raised in Puerto Rico, received her BSc from the University of Delaware in 1984 and her Master's Degree from the Escuela Politécnica Nacional (Quito, Ecuador) in 1988 where she went as a Fulbright Scholar.

## MARIE C. EBLÉ

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Marie Eblé earned a Master of Science in Physical Oceanography from Texas A&M University in 1984. After completing her degree, she worked two years with the consulting firm of Northern Technical Services, Inc. where she conducted oceanographic and hydraulic field and numerical modeling studies. She joined the National Oceanic and Atmospheric Administration in 1986 as research oceanographer to develop processing and analysis software for interpretation of bottom pressure recorder and sea level time series data in support of a newly established tsunami research effort. In the mid-1990's, Ms. Eblé engaged with Pacific Marine Environmental Laboratory (PMEL) engineers to develop and test a Deep-

ocean Assessment and Reporting of Tsunami (DART) measurement capability. In 1999, she served as DART Project Manager to ensure that engineering design efforts met research needs, to oversee web display and distribution of bottom pressure data from PMEL servers, and, beginning in 2002, to coordinate transition of DART array operations and maintenance to NOAA's operational National Data Buoy Center. In 2008 until retirement, Ms. Eblé served as Deputy Director of the NOAA Center for Tsunami Research. Her responsibilities included liaison between NOAA Center for Tsunami Research and all partner agencies, representing NOAA on the National Tsunami Hazard Mitigation Program Mapping & Modeling Sub- committee, and engaging in scientific research, presenting scientific findings at national and international scientific venues. Currently, Ms Eblé continues work with a USGS Powell Center sponsored Tsunami Sources project as co-principal investigator and now serves on the NOAA Tsunami Science Technical Advisory Panel.

#### **TAMMY FUKUJI**

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Tammy Fukuji was born and raised in Honolulu, Hawaii. She graduated from the University of Hawaii at Manoa with a Bachelor of Science in Information and Computer Sciences. Tammy first started working for the National Weather Service Pacific Region Headquarters in 2002 as a Student Intern. In 2005, she became the Information Technology Specialist for the International Tsunami Information Center (ITIC). She plays a key role in distributing, updating and assisting with the Tsunami Warning Decision Support Tools (TWTools), which includes TideTool, TTT, CISN, and TsuCAT software. She is also the ITIC System Administrator and Webmaster.

# KIMBERLEY MAISONET-GONZALEZ

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Kimberly Maisonet González started working as a part-time student contractor in 2023 at the International Tsunami Information Center Caribbean Office (ITIC-CAR) in Mayagüez, Puerto Rico. She also interned at the Smithsonian National Museum of Natural History and the Puerto Rico Landslide Hazard Mitigation office (formerly known as SLIDES-PR). Kimberly obtained her BS in Geology from the University of Puerto Rico Mayagüez Campus in May 2025 and is currently working as a full-time contractor at ITIC-CAR. Her work primarily supports the implementation of the UNESCO/IOC Tsunami Ready Programme in Anguilla, Antigua and Barbuda, Belize, Honduras, and Saint Lucia as well as the CARIBE WAVE tsunami exercise.

#### NOAA CENTER FOR TSUNAMI RESEARCH

#### CHRISTOPHER MOORE

Director, NOAA National Center for Tsunami Research (NCTR), Pacific Environmental Laboratory, Seattle, WA, USA, E-mail: christopher.moore@noaa.gov

Christopher Moore is the director of the NOAA Center for Tsunami Research, the tsunami research team of NOAA's Pacific Marine Environmental Laboratory in Seattle, Washington. His undergraduate degree is in Physics from the University of California, Santa Cruz, and he received his Master's in Physical Oceanography in 1996 at the University of Washington. He is the project manager for the NOAA tsunami forecast system and a modeler with a background in computational fluid dynamics and data analysis. As a developer of the SIFT forecast system, he is interested in real-time DART buoy data assimilation. He developed the Community Model Interface for Tsunami (ComMIT), and the Tsunami Coastal Assessment Tool (TsuCAT): tsunami modeling tools that are in use world-wide to create critical evacuation maps and rapid assessments for exercises, and as part of the Tsunami Ready program, and he sits on several committees including those in the National Tsunami Hazard Mitigation Program, and the IOC Tsunami Programme.

# INDIAN OCEAN TSUNAMI INFORMATION CENTRE

#### ARDITO M. KODIJAT

Head, UNESCO/IOC Indian Ocean Tsunami Information Centre (IOTIC) UNESCO Office Jakarta, Sentral Senayan I, 7th Floor Jalan Asia Afrika No. 8, Senayan Jakarta 10270 – Indonesia E-mail: a.kodijat@unesco.org

Ardito M. Kodijat joined UNESCO in 2006 and currently posted as the National Professional Officer for Disaster Risk Reduction and Tsunami Information unit (DRRTIU) in UNESCO Jakarta Office coordinating, managing, and implementing programmes of the Indian Ocean Tsunami Information Centre (IOTIC) of the Intergovernmental Oceanographic Commission of UNESCO (UNESCO/IOC). IOTIC has been supporting the Intergovernmental Coordination Group for Indian Ocean Tsunami Warning and Mitigation System of IOC-UNESCO (ICG/IOTWMS) on tsunami risk reduction for Indian Ocean at-risk communities through capacity building in tsunami hazard, awareness, preparedness, education, and mitigation measures. Mr. Kodijat has been actively involved in programs and activities on UNESCO/IOC Tsunami Ready; Tsunami Warning and Emergency Response SOP: Tsunami Risk Reduction Policy: Tsunami Exercises: and Tsunami Evacuation Maps, Plans, and Procedures. Under the UNESCO Science Sector, Mr. Kodijat is coordinating the disaster risk reduction program of UNESCO office Jakarta covering Brunei Darussalam, Indonesia, Malaysia, the Philippines and Timor-Leste focusing on advocating the Youth and Young Professionals in Science, Engineering, Technology, and Innovation for Disaster Risk Reduction and strengthening Disaster Risk Reduction and Management in UNESCO Designated Sites. Prior joining for UNESCO he was the head of Training Centre for the Agency for Assessment and Application of Technology of Indonesia and the Deputy Assistant for International Research Cooperation of the Ministry for Research and Technology of Indonesia.

# **PACIFIC TSUNAMI WARNING CENTER**

#### DR. CHARLES MCCREERY

Director, NOAA Pacific Tsunami Warning Center (PTWC) 1845 Wasp Blvd, Bldg 176, Honolulu, HI, 96818, E-mail: charles.mccreery@noaa.gov

Charles McCreery was born and raised in Kansas City, Missouri, but moved to Honolulu when he was 17 to attend the University of Hawaii. As a freshman, he took a job as a student assistant at the Hawaii Institute of Geophysics where he had his first introduction to tsunamis. They were a topic of much research because the state had been struck five times by destructive tsunamis over just the past 22 years. Several of the geophysics graduate students were members of the "Suicide Squad" for measuring tsunamis. They had Civil Defense passes and were supposed to rush to the beach if there was a tsunami warning, erect a measuring staff, and observe the height of the waves while a partner waited nearby in a car in case a quick escape was necessary. Over the next twenty years, he continued to work at the Institute on a variety of research topics and completed a Ph.D. in Geophysics in 1992. He got involved with tsunamis again as part of a project to investigate whether underwater sound from earthquakes could be used to detect tsunamigenesis. Based on limited data, the results were only suggestive. This topic has resurfaced later as a potential way to detect undersea landslide tsunami sources. In 1993, he left the University and joined the Pacific Tsunami Warning Center where he learned about the challenges of operations in contrast to research. In 1995, he moved to the International Tsunami Information Center as its Director in support of the international cooperation that is essential to the warning system. Then in 1997, he returned to the Pacific Tsunami Warning Center as its Director. On December 26, 2004, the Indian Ocean tsunami

disaster demonstrated the terrible effects this hazard can render, especially when communities are not prepared. Then on September 29, 2009 the most destructive tsunami to strike the U.S. since the 1964 hit American Samoa as well as Samoa and Tonga. In 2010 and in 2011, major Pacific-wide tsunamis struck again in the Pacific coming from Chile and then Japan reemphasizing the overall need to stay prepared and to operate ocean-wide warning systems. Since 2004, his efforts and those of the Center have been focused on improving the tsunami warning system for the U.S. as well as the rest of the world.

# DR. STUART A. WEINSTEIN

Deputy Director, NOAA Pacific Tsunami Warning Center (PTWC) 1845 Wasp Blvd, Bldg 176, Honolulu, HI, 96818, E-mail: stuart.weinstein@noaa.gov

Stuart Weinstein is the Deputy Director of the Pacific Tsunami Warning Center (PTWC) on Ford Island, Hawaii, USA. He has held this position since 2005, and has been with the PTWC since 1998. He oversees the day-to-day operations of the warning center and conducts tsunami training with the International Tsunami Information Center based in Hawaii. Stuart was born and raised in New York. He received his B.S. in Geophysics and Geology from Binghamton University (New York) in 1983 and an M.S. in Geological Sciences from Northwestern University (Illinois) in 1986. Stuart received his Ph.D. in 1991 from the Johns Hopkins University (Maryland) for his dissertation on thermal convection in planetary mantles. He continued in this area of research with a National Science Foundation Postdoctoral Fellow in Earth Sciences grant at the University of Michigan (Ann Arbor) in 1991 and at the University of Hawaii as the SOEST Young Investigator in 1993. Stuart moved back to NY in 1996 where he worked for Bloomberg L.P. in New York City writing software to analyze Mortgage Backed Securities. Deciding he missed the year-round pleasant climate of Hawaii, Stuart moved back to Hawaii in 1998 (by this time he was well experienced in moving trans-continental distances) and has lived and worked in Hawaii ever since.

#### DR. NATHAN BECKER

Senior Physical Scientist, NOAA Pacific Tsunami Warning Center (PTWC) 1845 Wasp Blvd, Bldg 176, Honolulu, HI, 96818, E-mail: nathan.becker@noaa.gov

Dr. Nathan Becker is a Senior Physical Scientist (shift lead) at the NWS's Pacific Tsunami Warning Center (PTWC). Along with his colleagues he monitors the world 24/7 for the phenomena that generate tsunamis and generates forecasts and alerts for tsunamis in the Pacific Ocean and the Caribbean Sea when they occur. Between tsunamis he carries out applied research towards improving the tsunami warning system, such as using geospatial analysis to predict tsunami warning system performance gains from the deployment of <a href="SMART cables">SMART cables</a>. He also applies his skills in data visualization towards designing displays and products for PTWC's operations as well as for education and outreach work towards improving tsunami hazard awareness. In particular, he creates animations of earthquakes and tsunamis for <a href="PTWC's YouTube channel">PTWC's YouTube channel</a> and <a href="NOAA's Science on a Sphere">NOAA's Science on a Sphere</a> exhibits. In addition to his scientific work Nathan also represents bargaining-unit employees in NWS's Pacific Region as their <a href="NWSEO">NWSEO</a> Region Chair, having previously served as the Region's Vice Chair and PTWC's Steward. He also serves as the NWSEO representative on national-level teams that impact the NWS's tsunami program.

Before joining PTWC Nathan pursued his graduate studies in Geology and Geophysics at the University of Hawai'i at Mānoa, earning a Ph.D. in these subjects in 2005. His research focused on volcanic and tectonic processes associated with the Juan de Fuca Ridge, the Mariana Trench, and Kama'ehuakanaloa (Lō'ihi) Seamount, work that required him to become adept with

sea-floor mapping sonars and deep-sea submersibles. In the aftermath of the devastating 2004 Indian Ocean tsunami the United States expanded its tsunami warning program, including hiring additional personnel. Dr. Becker joined PTWC in 2006 and has been there ever since.

Outside of work Nathan enjoys photography, especially landscape, nature, and astrophotography, and the travel that goes along with it.

# **DR. STANLEY GOOSBY**

Senior Physical Scientist, NOAA Pacific Tsunami Warning Center (PTWC) 1845 Wasp Blvd, Bldg 176, Honolulu, HI, 96818, E-mail: stanley.goosby@noaa.gov

Dr. Goosby is a Duty Scientist at the Pacific Tsunami Warning Center (PTWC) where he has worked for 5years. Prior to working at PTWC, he held a similar position at the National Tsunami Warning Center in Alaska for 2 years. As a Duty Scientist, Dr Goosby detects and monitors tsunamis when they occur, predicts their arrival times and identifies the affected coastal areas, and provides the appropriate alerts to management agencies and the public. Additionally, Dr. Goosby was the Chief Scientist for the Pacific Disaster Center for 10 years, where he conducted studies and developed applications for assessing the impacts disasters on populations and infrastructures. Originally from California, Dr. Goosby has lived in Hawaii for over 25 years. His areas of interest are artificial intelligence, machine learning, community outreach, and how to make our communities and planet more resilient to the impacts of disasters, including climate change. He enjoys learning about and experimenting with new technologies that can potentially improve our ability to communicate and interact with each other. He also enjoyed running, watching sunsets, and taking long walks on the beach.

#### CAROLINA HINCAPIÉ-CÁRDENAS

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Carolina Hincapié-Cárdenas graduated from the University Jorge Tadeo Lozano in Colombia as a Marine Biologist. In 2007 received her master's in Marine Sciences from the University of Puerto Rico at Mayagüez and is currently working on her Ph.D. with emphasis in Physical Oceanography. Carolina worked at the Puerto Rico Seismic Network (PRSN) for ten years in different areas: Research Assistant for projects related to the Installation of Tide Gauges in Puerto Rico, Modeling of Tsunami Behavior - Plan for Operators of Caribbean Ports and as a Data Analyst to support the operations 24/7 detecting and processing seismic and sea-level data for the PRSN's Area of Responsibility (PR, USVI, BVI). Her latest position at the PRSN was as Coordinator of the NWS TsunamiReady® Program in Puerto Rico, advising Emergency Managers and non-government organizations with their tsunami maps (inundation and evacuation), emergency response plans, evacuation routes and signage, outreach, and development of educational materials. Carolina has participated in different working groups and task teams for both UNESCO-IOC Caribbean and Pacific Warning Systems (IOC/ICG/CARIBE EWS; IOC/ICG/PTWS). From 2015 to 2017, she worked as a contractor for the USA NOAA/NWS International Tsunami Information Centre - Caribbean Office piloting projects throughout the Region and collaborating with the tsunami exercises. She is a Duty Scientist at the Pacific Tsunami Warning Centre, started on September 2023, and was the Oceanographer at the International Tsunami Information Centre in Honolulu (2021-2023) co-leading the implementation of the UNESCO-IOC Tsunami Ready Program in Pacific Island Countries.

# **CAROLINE JACKSON**

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Caroline Jackson is an Oceanographer at the NOAA/NWS/Pacific Tsunami Warning Center (PTWC). She was born and raised in Birmingham, Alabama and received a B.S. degree in Biology and Chemistry in 2015 from the University of Alabama at Birmingham. She moved to Hawai'i in 2016 to join her husband who was stationed at the Marine Corps Base Hawaii (MCBH). She earned a M.S. degree in Oceanography in 2023 from the University of Hawai'i at Mānoa and her thesis focused on satellite-based assessments of ocean acidification. While in graduate school, she loved participating in oceanographic research while at sea. She assisted with research efforts on the Hawaii Ocean Time-series (HOT) and Woods Hole Oceanographic Institution Time-series (WHOTS) cruises. After graduating she worked as an Environmental Scientist at AECOM before joining the PTWC in January of 2024, where performs the functions of a duty scientist and assists with operational development activities. She developed and maintains the PTWC office intranet site and is focused on advancing her Python, Linux, and Structured Query Language knowledge and skills by participating in ongoing training. She aspires to use these skills to contribute to research efforts involving the use of Global Navigation Satellite System (GNSS) data, sea level data, and/or physical oceanographic or hydrologic models. She also enjoys working with databases and developing maps, graphs, charts, and other visualizations using Python. During her time off, she enjoys spending time with family, playing pool, snorkeling, and cooking.

# **DR. ANDREI NATAROV**

Oceanographer, NOAA Pacific Tsunami Warning Center (PTWC) 1845 Wasp Blvd, Bldg 176, Honolulu, HI, 96818, E-mail: andrei.natarov@noaa.gov

Andrei Natarov is an oceanographer at the NOAA/NWS Pacific Tsunami Warning Center. He received his MS in in Physics and Applied Mathematics from Moscow Institute of Physics and Technology in 1996 and a PhD in Physical Oceanography and Scientific Computing from University of Michigan in 2001. After spending a few years conducting Office of Naval Research (ONR) funded post-doctoral research on internal waves at the University of Hawaii, Andrei joined the International Pacific Research Center (IPRC) – an international climate research center that is focused on Asia-Pacific region, where he carried out research in equatorial oceanography, hydrodynamic instability theory, waves, oceanic mixing, and a multitude of other topics. He participated in a large number of oceanographic research cruises, such as, for example DYNAMO/CINDY program at in the Indian Ocean in 2011, and a series of MIXET (MIXing in the Equatorial Thermocline) cruises funded by the National Science Foundation (NSF). Dr. Natarov joined the PTWC in January of 2021, where he now performs the functions of a duty scientist, conducts applied research, presents results of the research conducted at the PTWC at scientific conferences, and serves as the PTWC's Steward.

# DR. DAVID WALSH

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David Walsh received a BA in Physics in 1984 from Earlham College in Richmond, Indiana, and a PhD in Oceanography in 1992 from the MIT/Woods Hole Oceanographic Institution Joint Program in Oceanography. After earning his PhD he took a post-doctoral position in the Oceanography Department at Dalhousie University in Halifax, Nova Scotia. His thesis work focused on the dynamics of oceanic mesoscale eddies, while his post-doctoral work dealt with

turbulence and double-diffusive mixing processes in the ocean. Following his post-doctoral appointment and prior to coming to PTWC in 2006, David worked at NASA/GSFC (Goddard Space Flight Center) in Greenbelt, Maryland, then as an Associate Research Professor at the International Arctic Research Center (IARC) and University of Alaska Fairbanks (UAF), and as a Research Oceanographer at the Naval Research Laboratory (NRL).

#### DR. DAILIN WANG

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Dailin Wang received a B.S. degree in Mechanics in 1982 and a M.S. degree in fluid dynamics in 1985 from Peking University, Beijing, China. Upon receiving a Ph.D. degree in oceanography from the University of Hawaii in 1993, he received a postdoctoral research fellowship from the Advanced Study Program at the National Center for Atmospheric Research in Boulder, Colorado, USA. He joined the International Pacific Research Center at University of Hawaii in 1998 as a researcher. His areas of research included theories and modeling of ocean circulation and oceanic turbulence. In 2006, he joined the Pacific Tsunami Warning Center as a senior oceanographer. Among other things beside his watch standing duty, he is responsible for tide prediction at PTWC and is a developer of the PTWC real-time tsunami forecast model RIFT.

#### DR. JONATHAN WEISS

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Jonathan is a Duty Scientist and Geophysicist at the NOAA/NWS/Pacific Tsunami Warning Center (PTWC) with broad interests in active tectonics, geodynamics, crustal deformation, and geohazards. He received a BS in Geology from the College of William and Mary in Williamsburg, Virginia in 2000 and an MSc and PhD in Geology and Geophysics from the University of Hawai'i at Mānoa (UH) in 2004 and 2016, respectively. Between graduate degrees Jonathan spent many days at sea aboard research vessels as a Seafloor Mapping Specialist with the UH/NOAA Coral Reef Ecosystem Division. After completing postdoctoral research fellowships in the UK and Germany, Jonathan returned to Hawai'i with his family in mid-2021 to become a PTWC Duty Scientist. Jonathan's academic research has focused on using Global Navigation Satellite System (GNSS), Interferometric Synthetic Aperture Radar (InSAR) data, field-based observations, and geodynamical numerical modeling to achieve a synoptic view of the mechanisms that drive Earth-surface deformation, particularly related to the earthquake cycle. He currently works with colleagues to monitor global earthquakes and tsunamis and conducts applied research aimed at improving earthquake and tsunami warning. Jonathan lives on the North Shore of Oahu and when not on duty at PTWC he enjoys spending time with his wife and children, surfing, and skateboarding.

# CHILE

# MARIO ANDRÉS GUERRA VERA

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Mario Andrés Guerra Vera is a geologist specializing in coastal geomorphology. paleoseismology, and tsunami risk. Since 2021 he has been part of the GeoTsunami Laboratory at the Institute of Geography, PUCV, led by Dr. Marco Cisternas, where he develops applied research and field logistics. He has coordinated more than twenty field campaigns between Los Vilos (31°S) and Maullín (42°S), applying differential GNSS, ground-penetrating radar, and sedimentological analysis to reconstruct paleotsunami evidence and coseismic deformation processes. He has contributed to FONDECYT projects and the Millennium Nucleus CYCLO, and in 2024 he coordinated a field activity during the PATA (Paleoseismology, Active Tectonics, and Archaeoseismology) meeting, strengthening international collaboration in earthquake and tsunami research. He is currently pursuing an MSc in Maritime Engineering, Adaptation and Risk (University of Valparaíso), with a thesis on shoreline evolution in Maullín after the 1960 earthquake and tsunami, integrating satellite, tide gauge, and climate scenario analyses. In teaching, he has served as adjunct lecturer in Sedimentology and Stratigraphy, Coastal Geography, and Geomorphology, linking theory and field practice. He plays a leading role in professional training on tsunami science as Executive Director of the Tsunami Science Diploma (KIZUNA II), coordinated with PUCV, SHOA, SENAPRED, AGCID, and JICA, which has trained more than 90 professionals across Latin America. His work integrates research, modeling, and education with the goal of strengthening coastal resilience and tsunami preparedness in Chile and the wider region.

# **ALEJANDRA GUBLER**

Support Staff at the National Research Center for Integrated Natural Disaster Management (CIGIDEN), PhD student in Geography, Instituto de Geografia, Pontificia Universidad Católica de Chile, Av. Vicuña Mackenna 4860, 7820436 Macul, Región Metropolitana, Chille E-mail: agubler@uc.cl

She holds a degree in Civil Engineering and a Master of Science in Civil Engineering from Universidad Técnica Federico Santa María (2016), and she is currently a PhD student in Geography at Pontificia Universidad Católica de Chile. Since 2014, she has worked as Support Staff at the National Research Center for Integrated Natural Disaster Management (CIGIDEN). Her research experience includes collaboration in tsunami-related projects on early warning systems (FONDEF ID19I10048, FONDEF IT15I1001, and FONDEF D11I1119, led by Dr. Patricio Catalán), projects in which the Integrated Tsunami Prediction and Alarm System (SIPAT) was developed—a decision-support system currently operated by the Hydrographic and Oceanographic Service of the Chilean Navy (SHOA), the state technical agency responsible for issuing tsunami warnings in Chile. She has also contributed to projects related to tsunami evacuation (FONDECYT Regular 1210184 and FONDECYT 11170024, led by Dr. Jorge León). Her work integrates research and modeling of earthquake-generated tsunamis and pedestrian evacuation in tsunami scenarios

# STATE OF HAWAI'I, HAWAI'I EMERGENCY MANAGEMENT AGENCY

#### JACK LEE

Operations Branch Chief, Hawai'i Emergency Management Agency 4204 Diamond Head Road, Honolulu, HI 96816; E-mail: jack.d.lee@hawaii.gov

Jack D. Lee, Jr. is a veteran fire service leader with more than three decades of experience, including 25 years as a Chief Officer in the Department of Defense. A U.S. Army veteran, he has directed emergency services operations across Hawai'i, the Pacific region, and the Middle East, overseeing hundreds of personnel and coordinating multinational response efforts. Jack has built recognized hazardous materials and Chemical, Biological, Radiological, Nuclear, and Explosive (CBRNE) programs, led international disaster management exchanges with Japan and China, and served as a lead instructor for the International Fire Service Accreditation Congress (IFSAC). He has trained over 1,500 firefighters worldwide; beyond public service, he is a successful entrepreneur and consultant, committed to advancing emergency response capabilities globally.

# STATE OF HAWAI'I, CITY & COUNTY OF HONOLULU HONOLULU DEPARTMENT OF EMERGENCY MANAGEMENT

#### DR. RANDAL COLLINS

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#### JENNIFER WALTER

Deputy Director, Department of Emergency Management City and County of Honolulu, E-mail: jennifer.walter@honolulu.gov

Jennifer Walter is the Deputy Director of the City and County of Honolulu's Department of Emergency Management (DEM). This position supports the Director in leading the jurisdiction's comprehensive emergency management program on behalf of the Mayor, which includes preparedness, mitigation, protection, response and recovery activities across all natural, technological and human caused hazards. Ms. Walter's primary areas of focus are on program components related to plans, operations, training, exercises and community readiness.

Ms. Walter joined the City in August of 2019, bringing over 20 years of experience in emergency management within the governmental, private and non-profit sectors. Prior to joining DEM, she served as the Preparedness Branch Chief at the Hawaii Emergency Management Agency, managing the state's planning efforts, as well as statewide programs for training, exercise, hazard mitigation and private sector and voluntary agency engagement. She also served as the Deputy State Coordinating Officer during the series of major disasters that impacted Hawaii in 2018, including the eruption of Kilauea Volcano, Hurricane Lane and historic flooding. Prior to working for the state she was the Emergency Response Manager at Hawaiian Airlines. Her early career was spent with the American Red Cross, first at their headquarters in Washington DC and then at the Hawaii State Chapter as the Response and Preparedness Manager, where she oversaw the day to day operations of the disaster services program, which included the training and development of the 600 member volunteer workforce and the response to approximately 90 disasters a year.

Ms. Walter is a native of Washington, DC. She received a bachelor's degree from the University of Virginia in International Relations.

# UNIVERSITY OF HAWAI'I, AT MĀNOA

# PROF. KWOK FAI CHEUNG

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Dr. Kwok Fai Cheung is Professor and Graduate Chair of Ocean and Resources Engineering at the University of Hawaii with over 30 years of experience in academia, research, and consultancy. He received his BASc Magna Cum Laude in Civil Engineering from the University of Ottawa in 1985 and his MASc and PhD in Civil Engineering from the University of British Columbia in 1987 and 1991. He obtained his Professional Engineer's license with the Province of British Columbia in 1993 and the State of Hawaii in 1999. He worked at Sandwell Engineering Inc. (currently Ausenco Ltd.), British Columbia from 1991 to 1993, during which he was involved in shoreline management, port development, and offshore oil and gas projects worldwide. Dr. Cheung joined the Department of Ocean and Resources Engineering at the University of Hawaii as Assistant Professor in 1993; became full Professor in 2001; and served two consecutive terms as Department Chair from 2001 to 2007. His research covers theoretical and practical aspects of marine hydrodynamics, ocean wave mechanics, and coastal flood hazards. He has published over 100 refereed journal papers and managed the efforts to develop official tsunami hazard maps for Hawaii, American Samoa, Guam, and British Columbia Capital Regional District. Dr. Cheung has held visiting positions with the Danish Hydraulic Institute, Hørsholm, Denmark, 1996, 1997; National Institute for Coastal and Marine Management, The Hague, The Netherlands, 2001; and Naval Surface Warfare Center Carderock Division, West Bethesda, Maryland, 2004; and has been serving on the coordinating committee of the National Tsunami Hazard Mitigation Program since 2007. He has been active in consultancy for SWATH ship design, harbor and land reclamation projects, metocean analysis, and coastal flood hazard assessment.

#### DR. YOSHIKI YAMAZAKI

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Dr. Yoshiki Yamazaki is an Assistant Researcher in Ocean and Resources Engineering (ORE) at the University of Hawaii at Manoa, with more than two decades of experience in tsunami research. His research focuses on tsunami numerical model development, earthquake rupture mechanisms, and tsunami hazard mitigation. Since 2004, a significant part of his work has involved developing tsunami hazard maps for Hawaii, American Samoa, Guam, and Saipan.

He earned his B.E. in Mechanical Engineering from the Shibaura Institute of Technology in Tokyo, Japan, in 1996. After a five-year period working at UCC Ueshima Coffee Co., Ltd., in Kobe, Japan, he returned to his academic pursuits. He enrolled in the ORE program at the University of Hawaii at Manoa in 2003, where he completed his M.S. in 2004 and his Ph.D. in 2010.

# **CECI RODRIGUEZ CRUZ**

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Ceci Rodríguez Cruz is the Director of the SMART Cables International Programme Office (SMART IPO), the executive arm of the ITU/WMO/UNESCO-IOC Joint Task Force on SMART Subsea Cables. She leads global coordination to transform submarine telecommunication cables into SMART systems (Science Monitoring And Reliable Telecommunications), integrating sensors that provide vital data for tsunami and earthquake early warning, climate monitoring, and ocean science. A retired Peruvian naval officer with a Bachelor of Maritime Sciences and a Master of Finance, Ms. Rodríguez Cruz has served as a hydrographer specializing in natural hazards and as Head of the Peruvian Tsunami Warning Center, where she collaborated with UNESCO's Intergovernmental Oceanographic Commission to strengthen tsunami resilience in the South Pacific. As early as 2011, before the SMART initiative was created, she examined the potential of submarine cables for hazard monitoring in Peru, a vision that now aligns with a growing global effort. She has also completed the Stanford Graduate School of Business LEAD Executive Program and is a certified Project Management Professional (PMP). Her work focuses on bridging science, policy, and industry, fostering partnerships that protect lives, support ocean stewardship, and strengthen resilience to climate change.

## PROF. IAN ROBERTSON, Ph.D., P.E.

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Dr. Robertson is Professor of Structural Engineering at the University of Hawaii. He received his Ph.D. from Rice University in Houston, Texas. He is a registered structural engineer in the State of Hawaii. His research interests include the performance of steel and concrete structures during seismic, hurricane, tsunami and other extreme loading events. He participated in post-tsunami structural surveys of Samoa, Chile, the Tohoku coast of Japan, and Palu, Indonesia. He served on the technical committees that developed both first and second editions of FEMA P-646, *Guidelines for the Design of Structures for Vertical Evacuation from Tsunamis*, and he was sole editor of the third edition of this document. He serves as vice-chair of the ASCE 7 Tsunami Loads and Effects sub-committee that developed the first comprehensive tsunami design chapter for ASCE 7-16, *Minimum Design Loads and Associated Criteria for Buildings and Other Structures*. He also developed a design manual to accompany the ASCE 7-16 design provisions to introduce practicing engineers to the new code requirements.

# **UNIVERSITY OF HAWAI'I, SEA LEVEL CENTER**

#### DR. PHILIP THOMPSON

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Phil Thompson received a BS in Physics from North Carolina State University (2004) and a PhD in Physical Oceanography from the University of South Florida (2012). He then moved to the University of Hawai'i at Mānoa as a researcher with the University of Hawai'i Sea Level Center (UHSLC), eventually becoming Associate Director (2014) and then Director (2017). Phil subsequently joined the faculty of the Department of Oceanography at UH (2018) and is currently a tenured Associate Professor in the department. In addition to his administrative and teaching roles, Phil serves as the principal investigator for a variety of research projects funded by NOAA, DOD, and NASA focused on understanding decadal climate variability, future tidal flooding, and the interaction of sea level and waves in the nearshore environment. An emerging theme in his work is the co-production of research that facilitates science-based coastal management and tools that support effective science communication.

#### **JONATHAN AVERY**

Coastal Geodesy Specialist, University of Hawaii Sea Level Center (UHSLC) 1000 Pope Rd, MSB 422, Honolulu, HI, 96813

Jon has an MS in Geophysics from the University of Hawaii. He designs and operates the colocated GNSS stations next to the UHSLC tide gauges, conducts LiDAR surveys, and does local RTK GPS surveys around the islands. He is also the system administrator for the UHSLC.

#### **JASON KLEMM**

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