

2023 年 濱口梧陵国際賞受賞者

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磯部博士は、海洋波浪の方向スペクトルの推定や非線形波の数値シミュレーションなど、新たな沿岸波浪の解析手法を理論的に導出し、沿岸防災に関わる海岸工学の分野において優れた研究成果を多数発表してきた。気候変動や海面上昇の影響評価に関する研究を通じて、国内海岸工学分野で気候変動を包括的に扱った初の図書である「地球温暖化の沿岸影響－海面上昇・気候変動の実態・影響・対応戦略」(土木学会編)の編纂を主導するほか、防災に関する政府機関の検討会の座長や委員を多数務め、特に東北地方太平洋沖地震津波による港湾や海岸の被害を教訓とした海岸法改正や「粘り強い構造」の防波堤・防潮堤の導入など、南海トラフ地震等への防災・減災対策等の政策方針決定に大きく貢献した。

Laura S.L. Kong 博士 国際津波情報センター長 (米国)



ローラ・コング博士は、政府間海洋学委員会(IOC)と米国海洋大気庁(NOAA)により共同運営されている国際津波情報センター(ITIC)のセンター長を 2001 年より務め、IOC の津波警報・減災システムを世界的に展開する取り組みを支援してきた。そこでは米国の太平洋津波警報センターや日本の気象庁のほか世界各国の津波警報組織同士の緊密な連携体制を構築しつつ、46 か国の政府間協力組織による太平洋津波警報・減災システム(ICG/PTWS)と連携し、各国の津波警報や防災体制の強化に貢献してきた。2004 年のスマトラ島沖地震によるインド洋大津波の後には、インド洋沿岸のみならず、カリブ海沿岸とその隣接域、地中海、さらに北大西洋など、世界各地の津波発生時の警報システムの評価や改善の提言など、地球規模での津波警報・減災システムの構築・展開に多大なる貢献をしてきた。

自然災害管理総合研究センター (チリ)



2010 年のチリ国内での津波災害を踏まえ、同国内での津波に関する理学・工学・技術面の強化を目的として 2012 年に自然災害管理総合研究センター(CIGIDEN)は設立され、以来、流体力学などの基礎物理学から、警報システムの構築と改善、都市計画、防災教育と啓蒙、さらに国内外の関係者間での連携に及ぶ、広範囲の分野において、国際的にも認められる専門家の養成に貢献した。また、チリ国家防災対策庁を支援しながら、チリ海軍水路海洋情報部局が運営する最先端の津波警報システムの開発にも大きく貢献し、垂直避難や津波危険度評価などのガイドラインを作成するなど、科学研究を進めるだけでなく、科学的知見の一般市民への普及にも尽力し、同国内の防災・減災対策の推進に大きな貢献をしてきた。

Hamaguchi Award 2023

Introduction of Awardees

Dr. ISOBE Masahiko, Professor Emeritus, The University of Tokyo/ Professor Emeritus, Kochi University of Technology, Japan



Dr. Isobe has developed innovative analysis methods for water waves theoretically, such as the estimation of directional spectrum of ocean waves and numerical simulation of nonlinear waves, and has published many excellent research results in the field of coastal engineering related to coastal disaster prevention. Through research works on impact assessment of climate change and sea level rise, he took the lead in editing the book “Coastal Impacts of Global Warming - Actual Status, Impacts, and Response Strategies of Sea Level Rise and Climate Change.” and served as chair and committee member of many governmental committees for disaster prevention and mitigation. In particular, he greatly contributed to revise the Coast Law and introduce resilient coastal structures based on the lessons learned from the damage to ports and coasts caused by the Great East Japan Earthquake Tsunami, and further to make policy decisions on disaster prevention and mitigation measures for Nankai Trough earthquake.

Dr. Laura S.L. Kong, Director of International Tsunami Information Centre, USA



Dr. Laura Kong has been the Director of the International Tsunami Information Center (ITIC) since 2001 and, 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 (ICG/PTWS) to strengthen national tsunami warnings and preparedness. In this capacity, the ITIC works closely with the USA Pacific Tsunami Warning Center, the Japan Meteorological Agency, and other international and national tsunami warnings centers. The ITIC is a joint partnership between the IOC and the USA National Oceanic and Atmospheric Administration. 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.

Research Center for Integrated Disaster Risk Management (CIGIDEN), Republic of Chile



CIGIDEN has been pivotal in overcoming the large deficits that Chile had before the 2010 Maule Earthquake in tsunami science, engineering and technology since it was established in 2012. The Center has contributed to increasing the number of specialists and researchers. It has fostered the emergence of a strong community in tsunami science in Chile, with a recognized international leadership, that has made important contributions ranging from fundamental physics and hydrodynamics, early warning systems, urban planning and tsunami evacuation, education and awareness, in collaboration with national and international peers, and relevant stakeholders. It has also contributed significantly to develop the state-of-the-art tsunami warning system operated by the Hydrographic and Oceanographic Service of the Chilean Navy while also supporting the National Disaster Risk Management Service. The Center has developed initial guidelines for vertical evacuation, tsunami hazard assessment, among others. CIGIDEN has become an essential actor not only in scientific terms, but also in transferring this science effectively to the public at large.