Editorial

"Coastal Dynamics, Hazards, and Numerical Modelling" in Memory of Prof. Byung Ho Choi

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This Special Issue is dedicated to Prof Byung Ho Choi at SungKyunKwan University, South Korea.

Prof. Byung Ho Choi, a very active contributor to our coastal engineering community and promoter of our discipline, passed away on 3 July 2020. During his long career, beginning from the late 1970, he made significant contributions to a diverse range of areas, including the theory and modeling of regional and global tides, tropical cyclone-induced storm surges and waves, tide-wave-surge-coupled storm surges and storm wave modeling, tsunami modeling and field works, a coastal environmental impact assessment due to coastal development, and coastal circulation in East Asian marginal seas. His profound influence spanned from theoretical to numerical and practical coastal engineering and oceanography.

Prof. Byung Ho Choi has spent 30+ years of his successful career at the Department of Civil and Environmental Engineering, Sungkyunkwan University, South Korea, which is one of the oldest institutes in the world. At the time of his initial recruitment, the department was still in the developing stage, and Prof. Byung Ho Choi had the opportunity to help shape the civil engineering department, spending time and energy to initiate and develop the coastal engineering discipline. He developed a vigorous and productive research group that is truly dedicated to teaching coastal engineering at all levels and educating the next generation of coastal and ocean engineers in South Korea.

Prof. Byung Ho Choi was one of the co-founders of the Korean Society of Coastal and Ocean Engineers (KSCOE), renowned for his leadership and initiatives to foster international collaboration on coastal and ocean engineering.

Prof. Byung Ho Choi was a very special person, full of enthusiasm and undeniable energy, complemented by his unique characteristics and sense of humor. He was also a pioneer and never hesitated to try new ideas, often crossing borders of disciplines, which is the legacy he left to his students and colleagues. All of us share the good fortune and privilege to have had him as a dear teacher, friend, and colleague; he was an extraordinary friend and a terrific professor, from which we all benefited.

We therefore feel obliged and honored to collect a series of papers by his students, friends, and colleagues together in this Special Issue dedicated to Prof. Byung Ho Choi. In this Special Issue, we are interested in articles on coastal processes and coastal dynamics, not only considering tides, waves, storm surges, and tsunamis—which build upon Prof. Choi's achievements—but also other issues affecting the coastal environment and local and

regional circulation in marginal seas, addressing a broad scope and thereby paying tribute to the rich scientific curiosity of Prof. Choi.

In this Special Issue, eleven contributing articles are published after rigorous reviews on various topics; a comprehensive review article on the historical development of numerical models of tides in East Asian marginal seas [1], tsunami evacuation due to 2018 Anak Krakatoa volcanic tsunami [2] and run-up heights distribution in coastal zones [3], numerical studies on sediment transport [4,5], a coupled model application to ocean circulation with respect to turbulence close schemes [6], coastal zone health index development for sustainable development and management [7], the prediction of *Cochlodinium polykrikoides* bloom in coastal water using convolution neural network [8], a high-resolution atmospheric model MPAS applications to extreme events, such as typhoons and consequential storm surge and waves [9], and mass transport due to edge waves in coastal zones [10]. Those contributing articles match well with the diverse research topics that Prof Byung Ho Choi had engaged in during his research career.

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