# SOS27 Workshop

**Speaker first name, last name, and affiliation:**
Gianmarco Mengaldo, National University of Singapore

**Presentation title:** "Explainable AI for Climate with a Focus on Extreme Events"

**Biography (max 700 characters, space included):**
Dr Gianmarco Mengaldo is an Assistant Professor in the Department of Mechanical Engineering at the National University of Singapore (NUS), a position he has held since 2020. He also serves as an Honorary Research Fellow at Imperial College London.
Dr Mengaldo earned both his Bachelor's and Master's degrees in Aerospace Engineering from Politecnico di Milano in Italy. He completed his PhD in Aeronautical Engineering at Imperial College London. Following his doctoral studies, he held various roles in both industry and academia, including positions at the European Centre for Medium-Range Weather Forecasts, the California Institute of Technology, and Keefe, Bruyette & Woods. His interdisciplinary research integrates computational mathematics and engineering to study complex systems that arise in applied science. His current research interests involve (i) explainable AI, both theoretical and applied, (ii) the intersection between AI and domain knowledge, (iii) data-mining technologies for coherent pattern identification, and (iv) high-fidelity multi-physics simulation tools. Dr Mengaldo's main application areas include climate science, engineering, healthcare, and finance. His work on climate and weather extremes has been featured in various media outlets, including Channel News Asia, among others.