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VITALITY

Progetto VITALITY | Programma di Consulenza Specialistica | **Seminario**

Hurricane-like cyclone risk in the Mediterranean and Black Seas (Medicanes)

Abstract

In this talk, Prof. Emanuel will explore the risk associated with hurricane-like cyclones, known as Medicanes, in the Mediterranean and Black Sea regions. He will analyze the physical mechanisms responsible for their formation, their frequency and intensity, and their impact on coastal communities and infrastructure. Additionally, the discussion will highlight how climate change may influence the occurrence and severity of these storms, shedding light on the broader implications for regional weather patterns, disaster preparedness, and future risk management strategies.

lunedì 14 aprile 2025 - Ore 15.00

Aula De Tollis
Dipartimento di Fisica

Kerry A. Emanuel
MIT - Massachusetts Institute of Technology

Dr. Kerry Emanuel is the Cecil and Ida Green emeritus professor of atmospheric science at the Massachusetts Institute of Technology, where he was on the faculty from 1981 to 2022. Before that he was on the faculty of UCLA from 1978 to 1981. Emanuel's initial focus was on the dynamics of rain and snow banding in winter storms, but his interests gradually migrated to the meteorology of the tropics and to climate change. His specialty is hurricane physics and he was the first to investigate how long-term climate change might affect hurricane activity, an issue that continues to occupy him today. His interests also include cumulus convection, and advanced methods of sampling the atmosphere in aid of numerical weather prediction. Emanuel is the author or co-author of over 300 peer-reviewed scientific papers, and three books, including Divine Wind: The History and Science of Hurricanes, published by Oxford University Press and aimed at a general audience, and What We Know about Climate Change, published by the MIT Press and now entering its third edition. He was a co-founder and co-director of MIT's Lorenz Center, a climate think tank devoted to basic, curiosity-driven climate research. He is the Chief Scientific Officer and co-founder of WindRiskTech, LLC, which provides clients with advanced synthetic tropical cyclone events sets for assessing current and future tropical cyclone risks worldwide.