



ΔΙΑΛΕΞΗ

Δευτέρα 6 Νοεμβρίου 2023, ώρα 13:00

*Η διάλεξη θα πραγματοποιηθεί στην Αίθουσα Α18 του Τομέα Φυσικής Περιβάλλοντος-Μετεωρολογίας,
Κτίριο ΦΥΣ-5, 1^{ος} όροφος*

ΘΕΜΑ: *Science and Applications at the Institute for ECHO*

Ομιλητής: **Dr. Menas C. Kafatos**, Professor of Computational Physics at Chapman University & Director of Institute for Earth, Computing, Human and Observing (*Institute for ECHO*)

Abstract

Science is rapidly becoming interdisciplinary and even transdisciplinary, combining different science areas of inquiry and even cutting across different fields such as scientific areas with applied technology, data sciences and socio-economic components. We briefly discuss several areas that ECHO at CU is involved in including international collaborations. Research and applications areas include climate variability and change; agriculture in changing climate; remote sensing; natural hazards including wildfires; state-of-the art quantum-like research including the role of the mind in observations of quantum systems; computational neuroscience; and data science. The presentation concludes with brief outline of the recently established Doctor of Science, D. Sc., program in Mathematics, Philosophy and Physics (MPP) and opportunities for doctoral work at Chapman University.

Short CV

Dr. Menas C. Kafatos is The Fletcher Jones Endowed Professor of Computational Physics at Chapman University & Director of Institute for

Earth, Computing, Human and Observing (Institute for ECHO). Author, physicist, philosopher, works on the environment, climate change and its effects; in natural hazards, including wildfires, pollution, storms, droughts; expert on quantum mechanics, cosmology, measurement and the role of the mind. He is one of few geo scientists who has worked on both Earth and space/astronomy, as well as data information systems for both Earth and space science. He works extensively and leads projects in all areas of hazards: Wildfires; droughts; dust transport; hurricane modeling; as well as impacts of climate change on agriculture and natural ecosystems. Climate related research, including seasonal to inter annual variability and effects on vegetation; climate change impacts on agriculture; connection of climate, possible impacts on hurricanes, dust storms and wildfires.

He received his B.A. in Physics from Cornell University in 1967 and his Ph.D. in Physics from the Massachusetts Institute of Technology in 1972. After postdoctoral work at NASA Goddard Space Flight Center, he joined George Mason University and was University Professor of Interdisciplinary Sciences from 1984-2008, where he also served as Dean of the School of Computational Sciences and Director of the Center for Earth Observing and Space Research. He and a team of computational scientists joined Chapman University in fall, 2008. He is the Founding Dean of the Schmid College of Science and Technology at Chapman University, serving as dean in 2009- 2012. He directs the Institute for Earth, Computing, Human and Observing. He has more than 45 years of experience in undergraduate and graduate teaching and research. He has published numerous books, and more than 340 articles in computational science, astrophysics, Earth systems science, hazards and global climate change, regional impacts of climate change, environmental issues, general relativity, cosmology, foundations of quantum theory, and consciousness, many in high impact journals and top reputation journals such as two in each, Nature and Scientific American.
