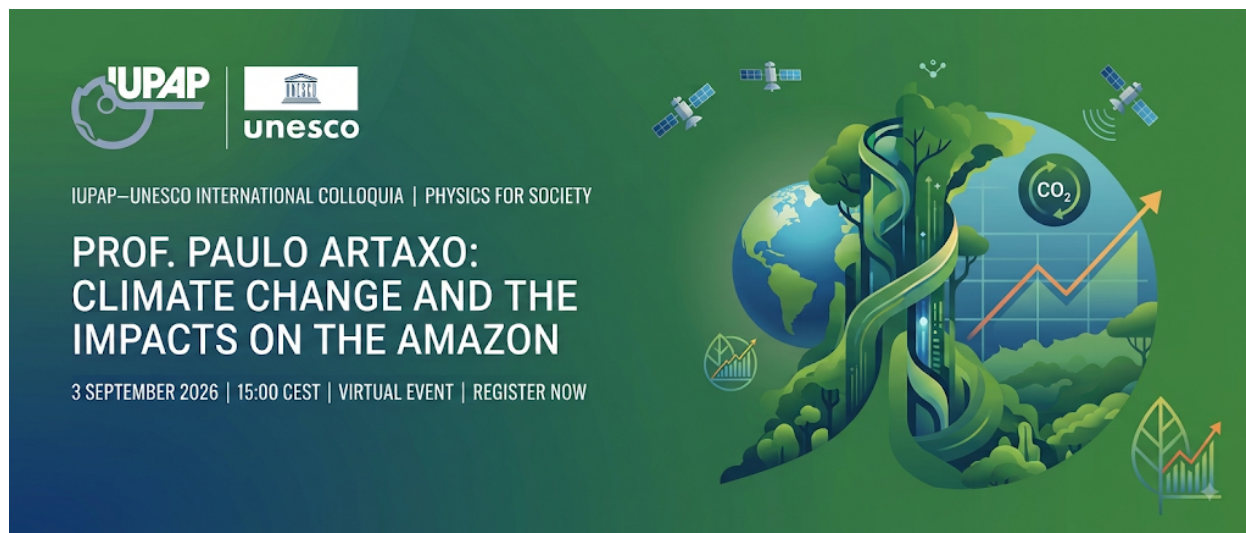


IUPAP-UNESCO Colloquia: Climate Change and the Impacts on the Amazon, with Prof. Paulo Artaxo



The **International Union of Pure and Applied Physics (IUPAP)** and **UNESCO** are proud to present the next session in the *Physics for Society* online colloquia series—an initiative launched to bring together scientists, policymakers, and industry experts to explore how physical sciences contribute to addressing humanity’s most pressing global challenges.

This session falls within the framework of the International Decade of Sciences for Sustainable Development (IDSSD 2024–2033) and aligns directly with the United Nations Sustainable Development Goals (SDGs), particularly SDG 13 (Climate Action) and SDG 15 (Life on Land).

In this colloquium, **Prof. Paulo Artaxo**—one of the world’s foremost experts on Amazonian atmospheric physics and climate interactions—will discuss how climate change is reshaping the Amazon basin. Drawing on decades of observational fieldwork, carbon-flux measurements, and remote sensing, Prof. Artaxo will unpack the key drivers and ecological impacts of these changes and highlight what they mean for one of the planet’s most vital ecosystems.

Event Details

Date and Time: 03 September 2026, 15:00 – 16:00 CEST

Location: Virtual Event, Zoom

Event Type: Category VIII – Symposium

Zoom Registration: [IUPAP-UNESCO Registration Link](#)

Abstract

Climate change is already with us, and its impacts are accelerating globally. Tropical forests—and the Amazon in particular—are experiencing profound shifts. Decreased precipitation, rising temperatures, and heightened climate extremes are causing the Amazon forest to lose stored carbon to the atmosphere. These regional shifts are now clearly quantifiable through continuous carbon flux tower networks and satellite remote sensing. This talk will explore the physical drivers and broader ecological impacts of climate change across tropical forests, focusing specifically on Amazonia.

About the Speaker

Paulo Artaxo is Full Professor and Head of the Department of Applied Physics at the Institute of Physics, University of São Paulo (USP), Brazil. He earned his B.Sc. in Physics, M.Sc. in Nuclear Physics, and Ph.D. in Atmospheric Physics from USP, and has held senior research and visiting positions at NASA, Harvard University, the Max Planck Institute for Chemistry, and the Universities of Antwerp, Lund, and Stockholm.

Prof. Artaxo's research applies physics to major environmental issues, including global climate change, biosphere–atmosphere interactions in the Amazon basin, atmospheric aerosol physics, and urban air pollution. He has led and coordinated major long-term international research initiatives in the Amazon and serves as Director of the Center for Sustainable Amazon Studies (CEAS) at USP.

A longtime member and Lead Author for the Intergovernmental Panel on Climate Change (IPCC), he shared in the 2007 Nobel Peace Prize awarded to the IPCC. He is an elected member of the Brazilian Academy of Sciences and The World Academy of Sciences (TWAS) and has authored over 500 peer-reviewed scientific publications on atmospheric aerosols, global change, and Amazonian climate science.

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