環變大樓三所聯合演講-VI

The Seasonal Flash Talks of IES x ISS x RCEC

Date and Time：January 11th, 2024, at 14:00

Venue：1F Lecture Hall, Environmental Change Research Bldg., AS
環變大樓一樓潤學廳

Organizer: Research Center for Environmental Changes, AS

Co-organizers: Institute of Earth Science, AS
Institute of Statistical Science, AS

統計所/ Institute of Statistic Science, AS

Speaker：Dr. Yi-Hau Chen/ Distinguished Research Fellow
程毅豪 特聘研究員

Title：Statistical Models and Analysis for Seismic Hazards Assessment

Abstract：This talk is based on my work with Dr. Chu-Chuan Peter Tsai, which proposes models for the ground motion attenuation (GMA) relationship accounting for site, earthquake and path-specific effects or "variance components," for more accurate seismic hazards prediction. We also have proposed a systematic computational algorithm based on the "EM algorithm" for implementing the analysis of the GMA models, which also will be discussed.

地球所/ Institute of Earth Sciences, AS

Speaker：Dr. Yunung Nina Lin/ Assistant Research Fellow
林玉儂 助研究員

Title：Urban Safety and Resilience: Structural Health Monitoring using SAR Tomography

Abstract：I will present the first SAR tomography research conducted in Taiwan – how this technology can help with the large-scale structural health monitoring, especially regarding the old buildings within the Taipei Basin.

環境變遷研究中心/ Research Center for Environmental Changes, AS

Speaker：Dr. Yi-Chun Chen/ Assistant Research Fellow
陳怡均 助研究員

Title：Pinpointing Air Pollutant Emissions from Space

Abstract：This work represents the first attempt to derive the regional nitrogen oxides (NOx) emissions of Taiwan using high resolution satellite data.
To enhance our comprehension of emissions at the urban scale and improve the accuracy of bottom-up emission inventories, the NOx emissions were estimated using remote sensing NO2 data and ground-based photolysis rate measurements. By monitoring the NOx emissions from space, we can better understand their sources and distributions.