



# **HARROW & HILLINGDON GEOLOGICAL SOCIETY**

*A Local Group of the Geologists' Association*

*Founded 1973*

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**Volcano Lecture Series 2025**

**Non-members, please register by email: [contact@hhgs.org.uk](mailto:contact@hhgs.org.uk)**

**Wednesday 10<sup>th</sup> December 2025 at 8pm on Zoom**

## **“Campi Flegrei: living on a restless volcano ”**

By Prof Christopher Kilburn (UCL Hazard Centre, Department of Earth Sciences, University College London)

Campi Flegrei is an active volcano on the western edge of Naples in Southern Italy. Unlike its well-known neighbour Vesuvius, it does not appear as a mountain but is instead a shallow depression about 15 km across. It last erupted in 1538, when Henry VIII was on the throne. The volcano has since become heavily populated and, today, more than 360,000 people live directly on top of its magmatic feeding system. New unrest began in 1950, for the first time since the last eruption. Four episodes of uplift have created a volcano-wide bulge that, close to its centre, has raised the coastal town of Pozzuoli more than 4 m out of the sea, while tens of thousands of small earthquakes have shaken the caldera to depths of 4 km. The unrest resembles the behaviour seen in the decades before 1538. It has twice triggered evacuations of as many as 40,000 people from Pozzuoli. The current episode began in 2004. The uplift has been slower and longer than on previous occasions. It suggests that a change has occurred in the state of the volcano. A question to be resolved is whether the change marks a gradual approach to conditions more favourable to eruption, or a return to stability without an eruption.



Ground uplift at the Darsena, the old fishing port at Pozzuoli in Campi Flegrei. The ramp on the right and the steps along the back wall originally reached sea level. It now stands more than 1.5 m out of the water. The boats have been left stranded on the new dry land.

Photo taken 05 September 2025. [Photo: CRJ Kilburn]



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Christopher Kilburn is Professor of Volcanology in the Department of Earth Sciences at UCL and Director of the UCL Hazard Centre. He has been watching volcanoes professionally since the late 1980s. During this time, he has been based at universities in the UK, Italy and Austria, as well as the Vesuvius Observatory, in Naples, and NASA's Jet Propulsion Laboratory, outside Los Angeles. His current research is focussed on volcanoes that show signs of reawakening after several generations at rest. He has developed a new approach to address the obvious first question on whether the signs indicate an imminent eruption. This has been used in practice most recently during the continuing crisis at Italy's Campi Flegrei volcano, immediately west of Naples.