

## **EGU23 Media Tip Sheet: Seismology around the world**

*Scientists can use data collected from seismic stations in myriad ways. In earthquake-prone regions where seismicity punctuates people's lives, seismic data can help bring about understanding of events and provide early warnings that can be crucial to avoiding injury or death. Seismic data can also monitor mud-spewing volcanoes and help scientists scout a place to drill into the Moho — the boundary between crust and mantle.*

### **Seismic observation at Nirano mud volcanoes, north Italy**

*Mud volcanoes can form when water-logged sediments are rapidly buried and subsequently overpressured. The northern Italian mud volcanoes of Nirano are a typical example, and have been investigated by various methods. Scientists will present their findings based on measured seismic signals, which are analogous to those of active volcanoes, suggesting similar mechanisms bubbling below the surface.*

**Tue, 25 April 14:25–14:35 CEST**

Session [GMPV5.3](#)

### **Site survey for potential MoHole drilling sites in the Guatemala Basin**

*Scientists want to drill a MoHole — a hole that penetrates the entire ocean crust, piercing the upper mantle. There are a small number of regions that are sufficiently old, cold and shallow enough to allow for drilling. Scientists will present seismic surveys about candidate MoHole sites in the Guatemala Basin.*

**Thu, 27 April 08:30–10:15 CEST (Poster)**

Session [ITS2.2/SSP1.2](#)

### **Adaptability of lessons learnt from recent medium-sized earthquakes to moderate seismic zones – disaster management perspectives for unprepared societies**

*Across Europe, many regions are prone to moderate earthquakes — seismic activity that, though not great, cannot be ignored. Hungary is one such region, where a 2019 magnitude-6.4 event caused damage to buildings and fear in the populace. Scientists who responded will discuss ways to reduce future potential damage in such moderately seismically active regions.*

**Thu, 27 April 08:30–10:15 CEST (Onsite Poster)**

Session [NH9.10](#)

### **Preliminary Results of Dynamic Rupture Simulations of the Mw7.8 Kahramanmaras Earthquake**

*How did the rupture along the East Anatolian Fault develop into the devastating magnitude-7.8 event that struck Turkey this Feb.? Scientists explore this event via rupture simulations, and discuss details of the second, magnitude-7.6 earthquake, as well as stress transfer of both events to other faults in the seismically active region.*

**Thu, 27 April 14:35–14:45 CEST**

Session [SM1.6](#)

### **Earthquake Early Warning with 3 seconds of records on a single station**

*Earthquake early warning alerts can provide crucial seconds for people to take protective action when an earthquake strikes. Scientists will present a set of machine learning algorithms designed to detect, locate and estimate the magnitude of an earthquake with 3 or more seconds of P-wave data from a single seismic station. This system, called E3WS, gives faster estimates than present systems.*

**Fri, 28 April 14:00–14:10 CEST**

Session [SM7.2](#)

### **Implementing a Citizen Seismology Communication Strategy in a Complex Economic, Political and Security Context: Issues and Feedback from the OSMOSE Project in Haïti**

*Seismology isn't just for formally trained scientists. A citizen science project in the aftermath of the 2010 Haiti earthquake uses low-cost seismic sensors called Raspberry Shakes to complement Haiti's national seismic network, while also improving risk perception among the people. Scientists leading this charge, however, have faced unforeseen difficulties related to security, educational and cultural barriers.*

**Fri, 28 April 14:00–15:45 CEST (Onsite Poster)**

Session [EOS1.4](#)