

PEPP Newsletter

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A European Version of PEPP

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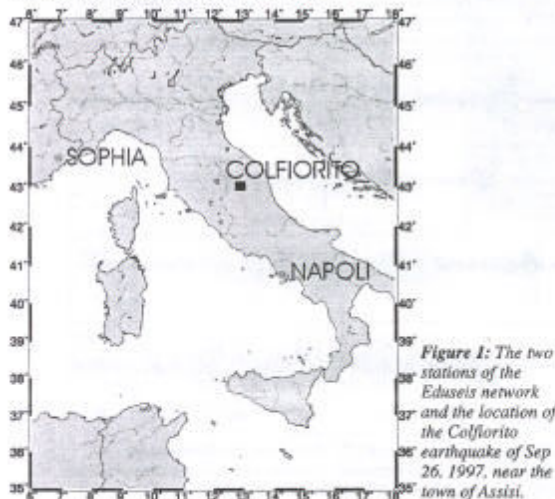


Figure 1: The two stations of the Edusets network and the location of the Colfiorito earthquake of Sep 26, 1997, near the town of Assisi.

In the footsteps of the U.S. PEPP project, we have started a limited experiment in Europe in order to see how we can confront high school students with the current practice of scientific data acquisition, and how we can establish a specific educational structure tailored to the European system—which is usually more advanced in the teaching of theoretical concepts, but far less so in the use of “hands on” experiments. These experiments currently run in France and Italy.

The “Città della Scienza,” a science museum in Naples, has acquired a three-component PMD-2023 seismograph with a GPS clock. The instrument has now been running for several months in the museum, where it was an immediate success. The museum is an adequate location for the seismograph, since much of the practical teaching of science in Italian high schools is organized through the museum system.

The Centre International de Valbonne, a “magnet” school in the middle of the French science park Sophia Antipolis, is running a Guralp PEPP-V sensor, also with GPS clock. We have developed our own data acquisition card which enables

us to communicate directly with the school PC—this way avoiding the upload of data by ftp. A working group of students is active every Wednesday afternoon and has created its own Web page hosted by the University of Nice <<http://aster.unice.fr>>. Using commercial software (sismolog from Edisoft) they have located local earthquakes. They won the first prize of technology for their presentation of the seismic experiment in 1997 at the “Exposcience Régionale” for the French County Provence-Alpes-Côte d’Azur.

The moderate but catastrophic earthquake of September 26 in central Italy, which severely damaged the beautiful Cathedral of St. Francis in Assisi, was recorded on both instruments (see Figures 1 and 2). The retrieval of the seismogram from Sophia Antipolis was done automatically.

The success of these two experiments has motivated us to widen the scope and start a data center very much like the PEPP data center to retrieve and distribute school seismograms. A European data center is planned at a later stage to collect the data from different countries.

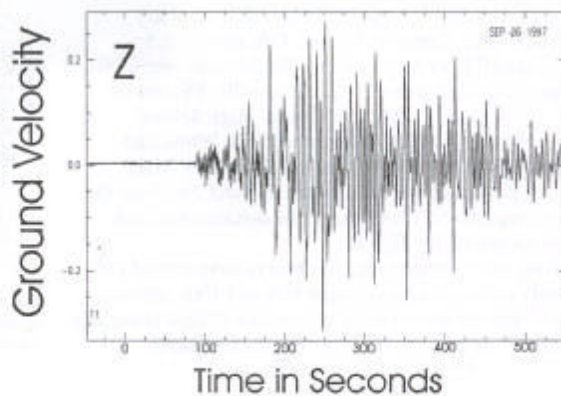


Figure 2a: Vertical component recording of the Colfiorito earthquake on the Guralp PEPP-V sensor in Sophia-Antipolis (France).

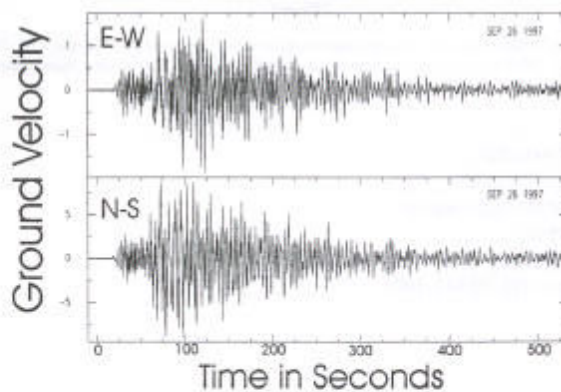


Figure 2b: Horizontal component recordings of the same quake on the PMD seismograph in Napoli (Italy).

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