
Glossary

All Terms

Part of text and figures are adapted from Faccioli E. e R. Paolucci: Elementi di Sismologia applicata all'Ingegneria, Pitagora, 2005.

A

Accelerometer

Instrument to measure seismic acceleration. It can be of two types:

analog instrument: ground acceleration is reproduced by a mechanical instrument on a physical support, typically paper or photographic film, and it is digitized at a later stage.

digital instrument: it is typically based on either electro-magnetic or force-balance transducers. The electric signal is then properly conditioned, sampled and digitized. The digital instruments are operating from about the mid-80s.

The most representative parameters defining the characteristics of the recording instrument response are as follows:

- sensor undamped natural vibration frequency (*frequency*);
- sensor damping coefficient with respect to critical (*damping*);
- frequency band for which the sensor gives a flat response (*frequency band*);
- generator constant of the sensor (*gain*);
- smallest signal that can be resolved by the sensor (*sensitivity*);
- maximum signal that can be resolved by the sensor (*full scale*);
- number of bits of the recorder (*number of bits*).

Active Fault

A fault segment that has moved within a time lapse that can be associated with recent to present-day activity normally in the last 10.000-100.000 years. Such manifestations may include for instance mild warping of the ground-surface associated with the effects of an active fault or geodetic data indicating crustal movement across a particular region otherwise known for seismic activity.

Adimensional Spectra

Response Spectra whose ordinates are divided by their PGA (see [PGA](#)).

a_g [g]

Peak ground acceleration (see [PGA](#)) value to which the target spectrum (see [Target Spectrum](#)) is anchored

Arias Intensity

A ground-motion parameter derived from an accelerogram and
