Analog to Digital Seismic Instrumentation

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Abstract—Developments of instruments to record earthquake have been remarkable in view of timing accuracy, frequency of ground motion, and detection thresholds of seismic station networks. Now, recording devices based on digital technology have completely replaced the old analogue systems. Many successful seismic recorders and sensors have been developed in the last few decades. Modern instruments use electronic sensors, amplifiers and recording instruments. Most are broadband, covering a wide range of frequencies. The most common recorder is a computer with an analog-to-digital converter. In this paper, we discuss the developments in the field of seismic instrumentation, the chronology of instrumentation, different seismometers available with their advantages and disadvantages.

Keywords: Sensors, frequency, analog, digital, seismometer.