

### **3.3-P25. POLARITY IDENTIFICATION TECHNIQUES AND QUALITY OF THE FIRST IMPULSE OF P WAVE AND DIGITAL SIGNAL PROCESSING IN JISVIEW EARTHQUAKES MONITORING SYSTEM**

The accuracy of the determination of the parameters and earthquake source mechanism has supported by made the development of polarity identification techniques and the quality of the first impulse of the P wave and digital signal processing in earthquake monitoring system JISView. Implementation includes the study of defining and testing methods and procedures appropriate in earthquake monitoring system with the aim of improving the system's ability to present information earthquakes and focal mechanism quickly and accurately while providing a strong scientific foundation for the data processing methods used. Testing and validation is performed to determine the level of accuracy and performance improvements are expected. Tests on digital signal processing method using a sample of seismic data recording UGM station vertical component (BHZ). For validation, the output signal and its spectrum is compared to the output signal of the SAC software DIMAS2003 and similar processes. Aspect of the detection method of determining the magnitude of the event and tested using seismic data recorded 10 occurrences of earthquakes in Indonesia in 2014, with a magnitude of 3.8 to 7.3 SR SR. The results further validated by the analysis of earthquake parameters were released BMKG, GFZ and USGS.

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