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# Model Visualization for NET-VISA

NET-VISA is a probabilistic system developed for seismic network processing. A rich amount of information is hidden inside its Generative Model (GM), an explicit mathematical description of the relationship between various factors in seismic network analysis. An Interactive Model Visualization tool (IMV) is being developed which will make "peeking into" the GM simple and intuitive through a web-based interfaced. Some of the relationships inside the GM are deterministic and some are statistical. Statistical relationships are described by probability distributions, the exact parameters of which (such as mean and standard deviation) are found by training NET-VISA using recent data. The IMV will make it possible to examine these distributions for attributes of events and arrivals such as the detection rate for each station for each of 14 phases. It will also clarify the assumptions and prior knowledge that are incorporated into NET-VISA's event determination. When NET-VISA is retrained, the IMV will be a visual tool for quality control both as a means of testing that the training has been accomplished correctly and that the IMS network has not changed unexpectedly.

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