Scaling law of AE events during uniaxial compression

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It is known that the frequency-magnitude relation for AE (acoustic emission) is logarithmic. In the previous experimental studies, however, the magnitude of AE has been determined as the output of the sensors for simplicity. We have a question about the magnitude of AE. Does the dominant frequency of AE with large amplitude differ from that of AE with small amplitude? In the present study, we carried out uniaxial compression tests using granite samples with recording AE signals continuously for long period (2 seconds). The main fracture occurred at around 1.8 seconds after the beginning of the record. We investigated the relationships between the amplitude and frequency of AE and the temporal change of the amplitude and frequency of AE prior to the main fracture.