

## Application of Intensity Magnitude to seismic intensity observation stations

# Kazuhiro Iwakiri[1]; Kazuo Ohtake[1]; Masashi Kiyomoto[2]; Shigeki Horiuchi[3]

[1] MRI; [2] Japan Meteorological Agency; [3] NIED

The intensity Magnitude (Mi) [Horiuchi and Yamamoto, 2005], which is calculated from observed intensity at each station with taking into account geometrical spreading and attenuation by Q, has been reported to be an effective index to estimate seismic intensity for Hi-net and K-NET. We introduced Mi to the JMA (and municipal) seismic intensity observation stations used in Earthquake Early Warning information system.

We found that averaged RMS residual of seismic intensities can be reduced to 0.55 with station correction by using Mi, whereas the RMS residual is 0.59 by using Mjma. Introducing new index to estimate seismic intensity, which can be calculated by using the empirical intensity attenuation model [Si and Midorikawa, 1999], the RMS residual is further reduced to 0.51. Those results indicate that Mi is effective index for seismic intensity observation stations and that the estimation accuracy of seismic intensity is improved by introducing the new index.