

**Digital Appendix for:**

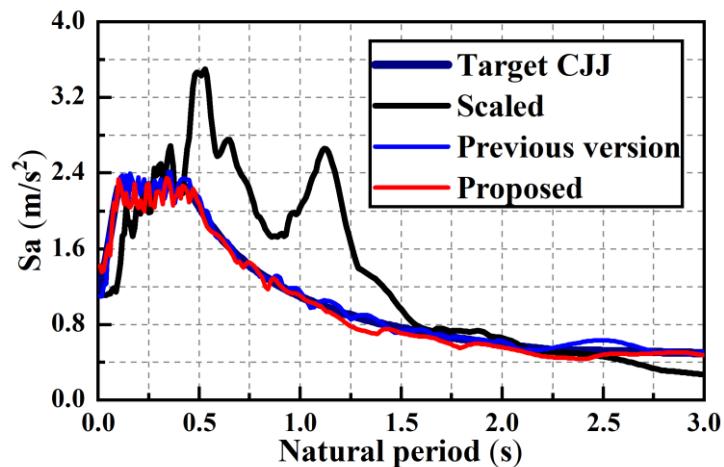
**An algorithm for spectrally matching bi-directional ground motions to a target RotD100 spectrum while maintaining the radial spectral acceleration pattern**

Jian Zhou, Akira Igarashi

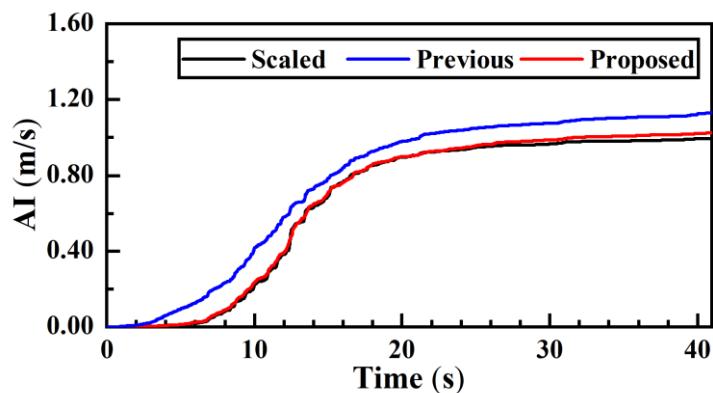
*Disaster Prevention Research Institute, Kyoto University*

**Results obtained using the CJJ RotD100 response spectrum**

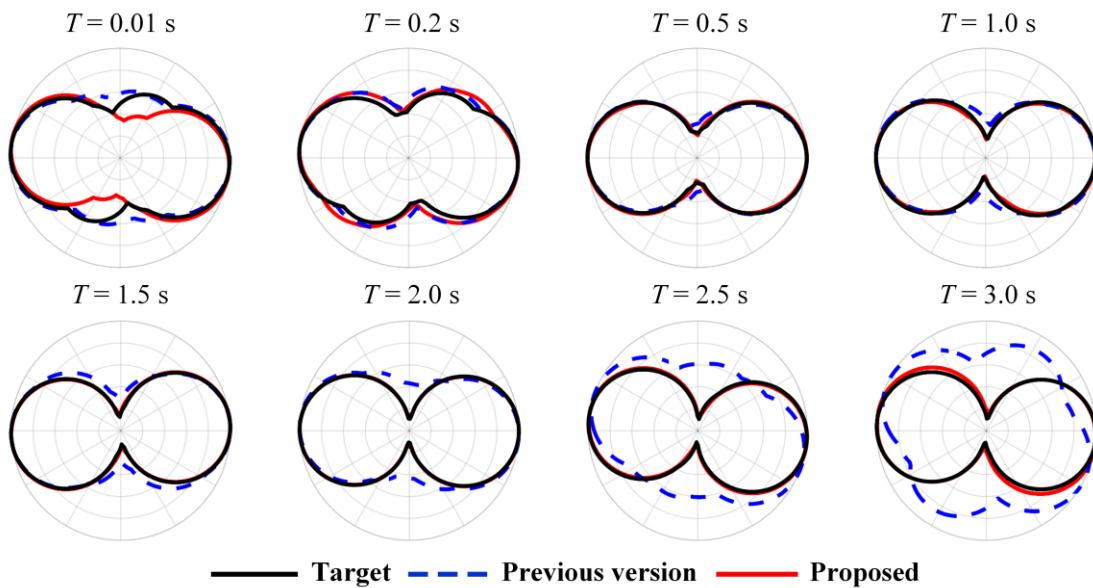
RotD100 response spectrum comparison (RSN 8)



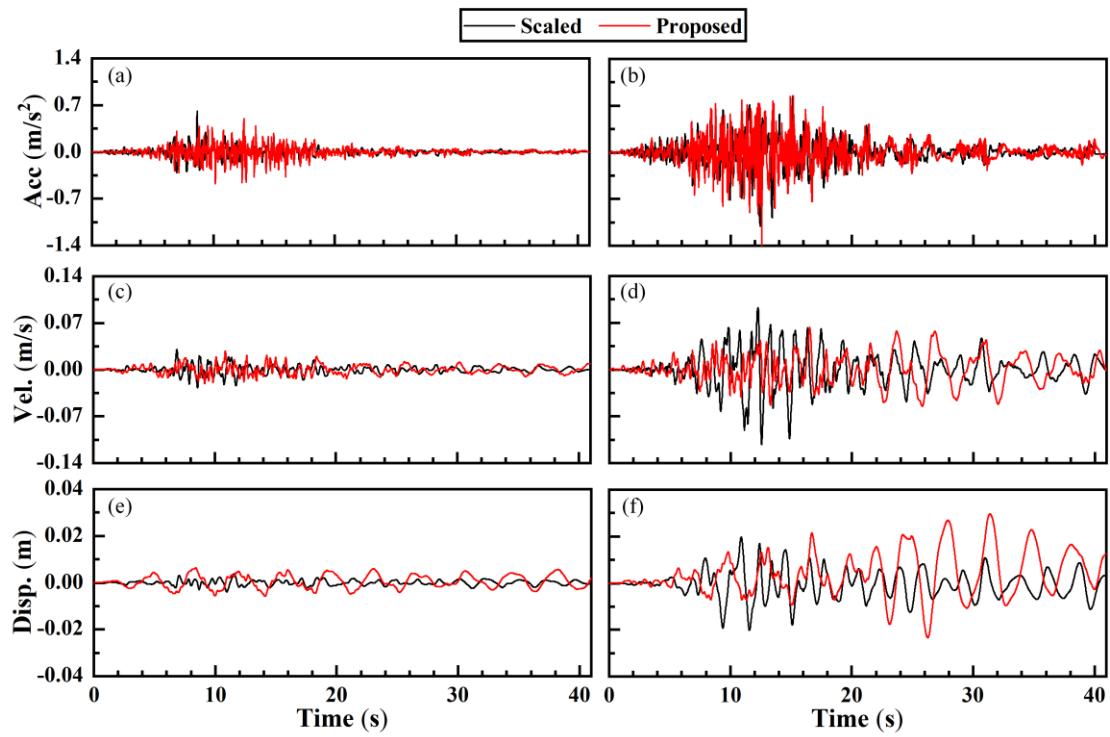
Arias intensity comparison (RSN 8)



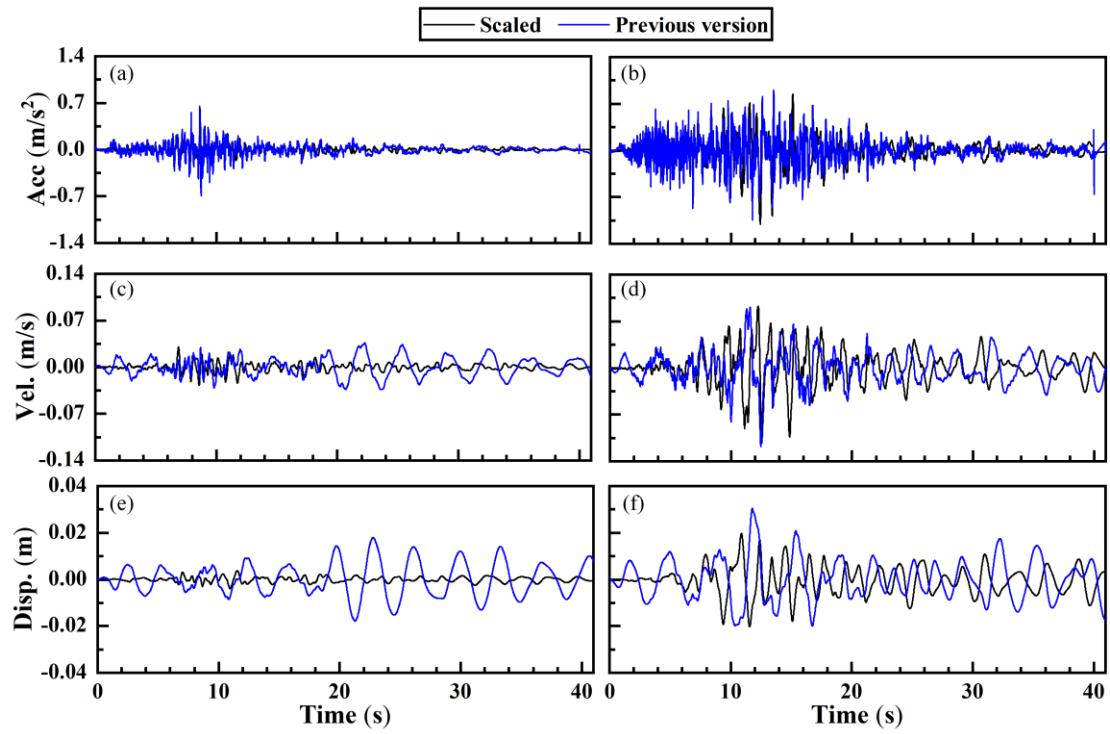
RadSAPs comparison (RSN 8)



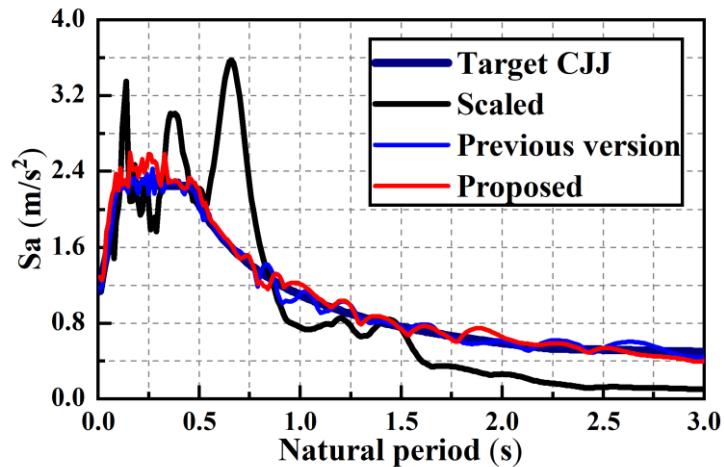
Time history comparison using proposed algorithm (RSN 8)



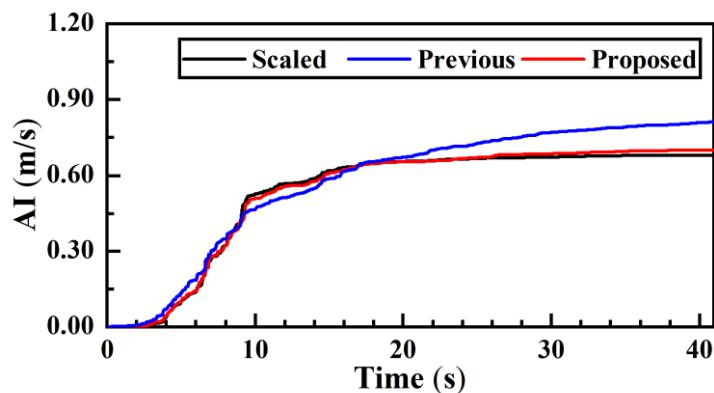
Time history comparison using previous version method (RSN 8)



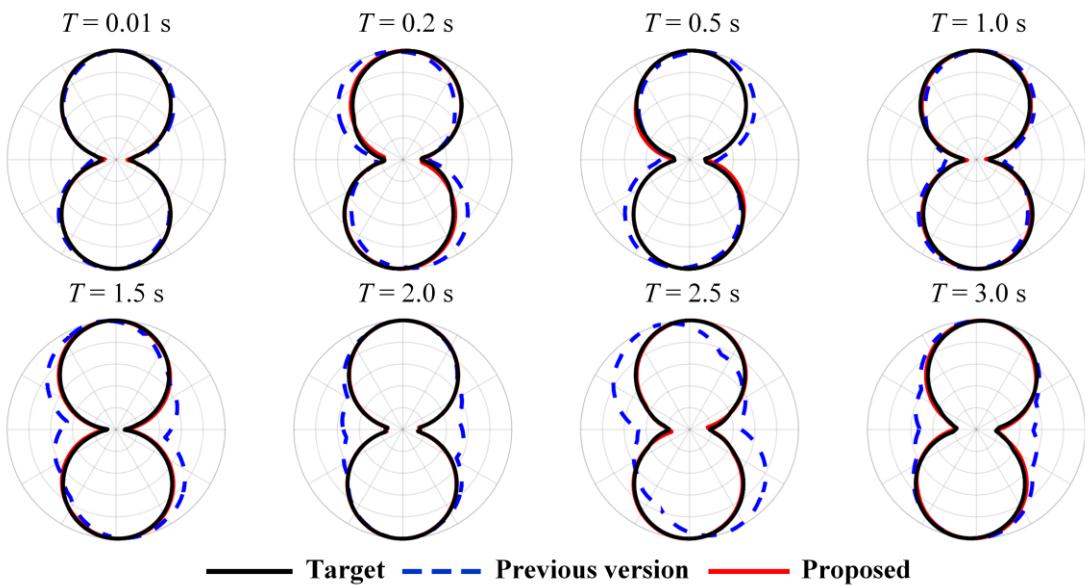
RotD100 response spectrum comparison (RSN 752)



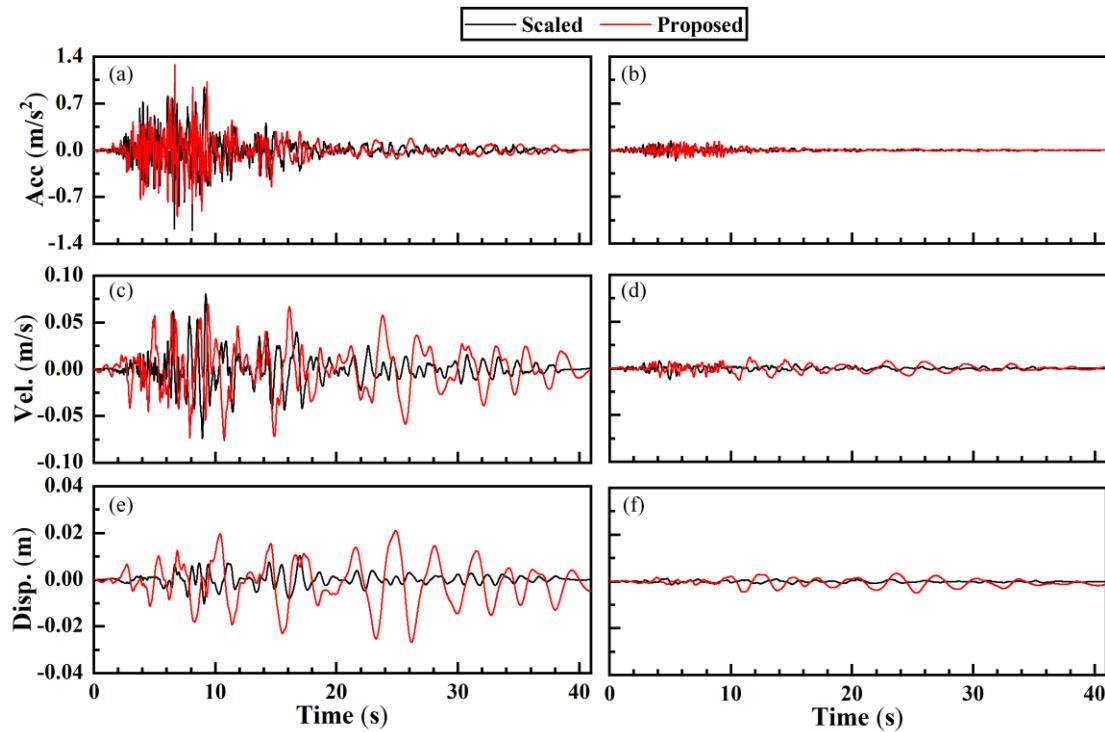
Arias intensity comparison (RSN 752)



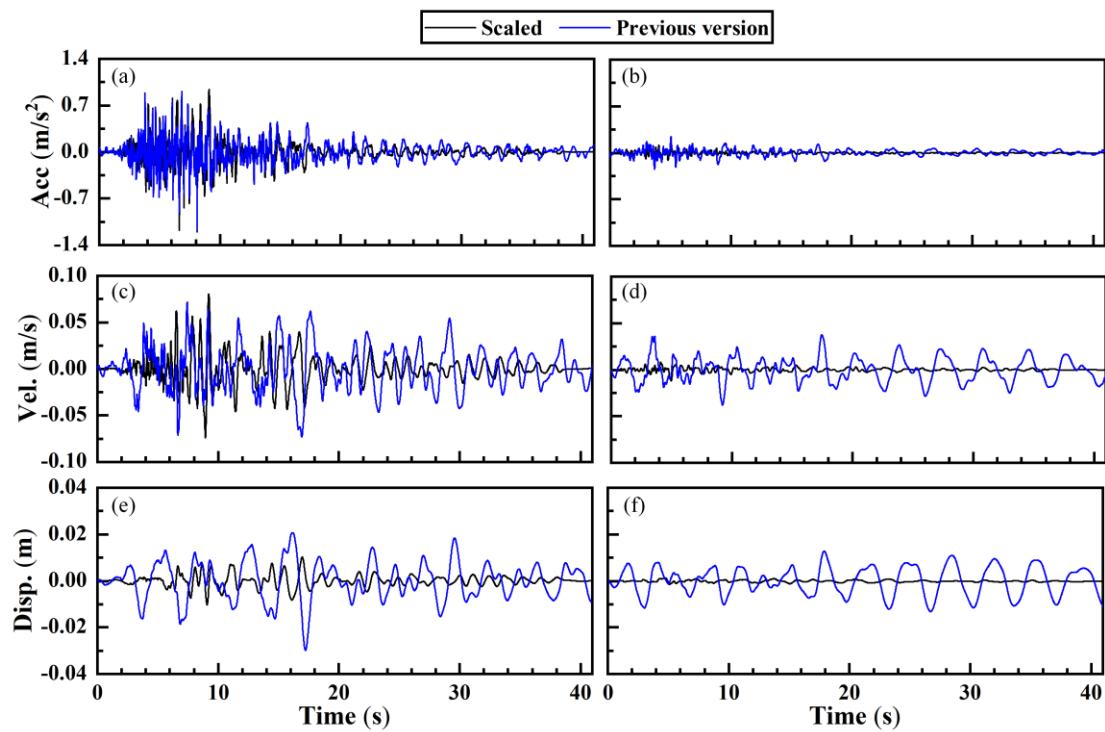
RadSAPs comparison (RSN 752)



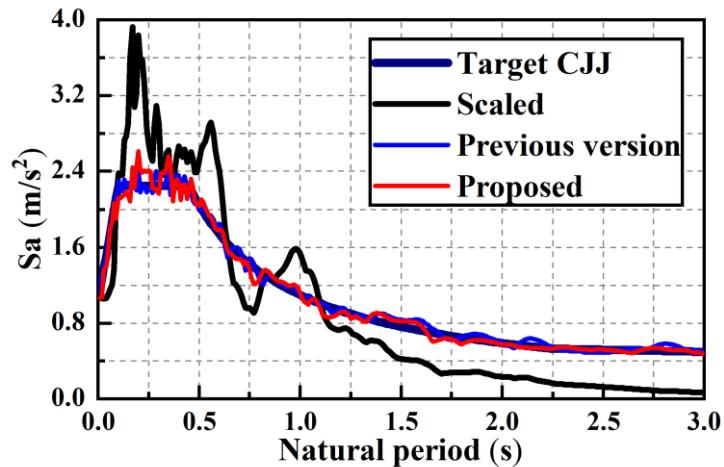
Time history comparison using proposed algorithm (RSN 752)



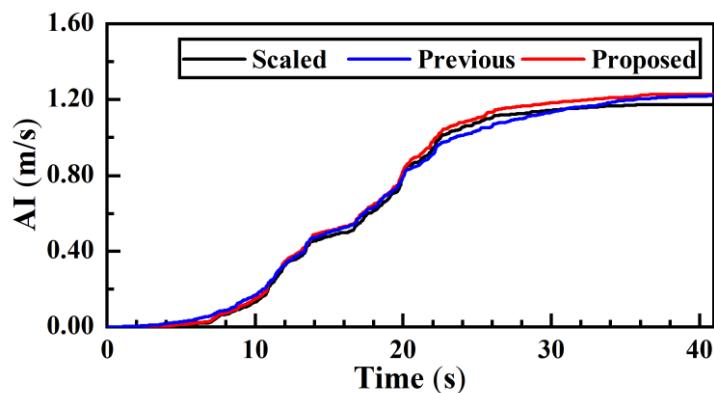
Time history comparison using previous version method (RSN 752)



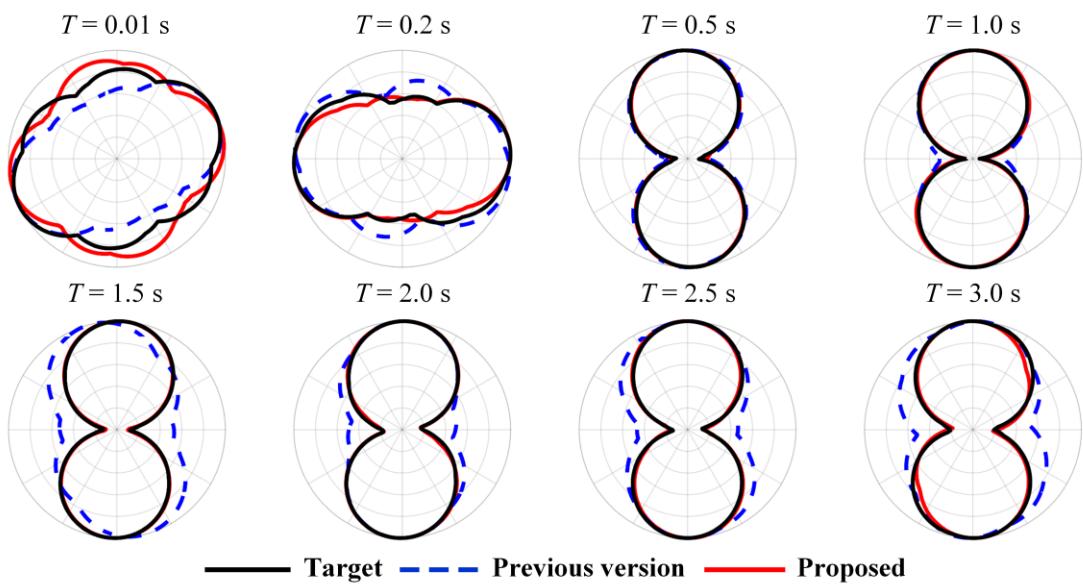
RotD100 response spectrum comparison (RSN 974)



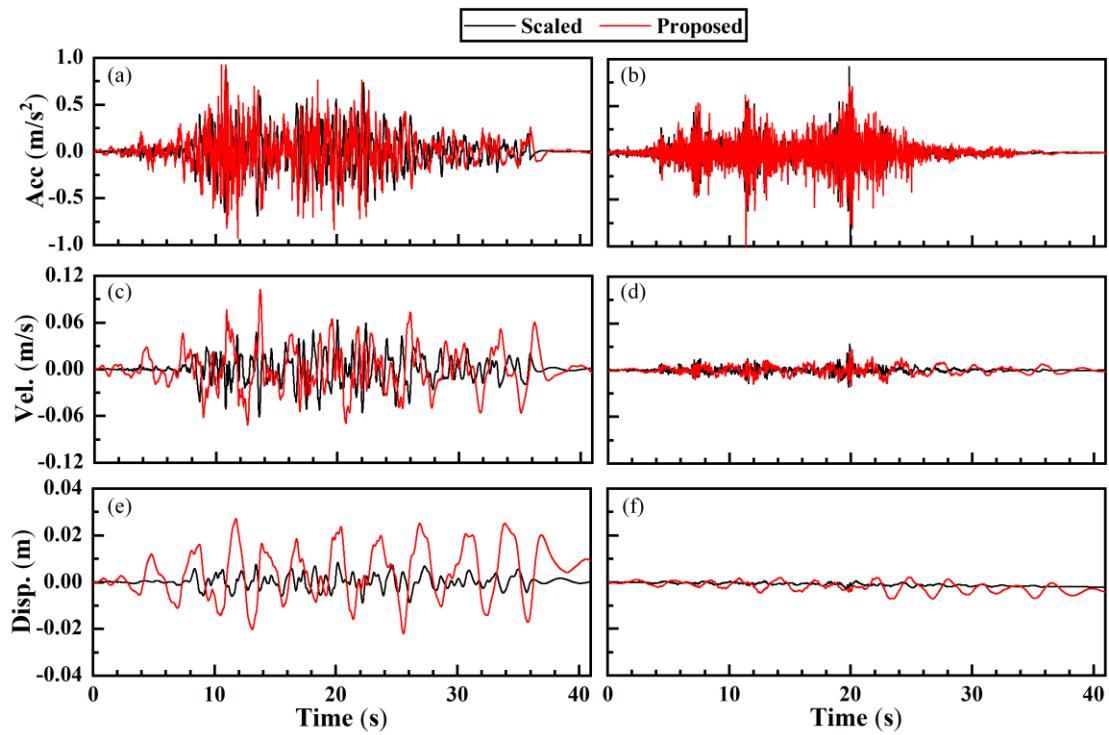
Arias intensity comparison (RSN 974)



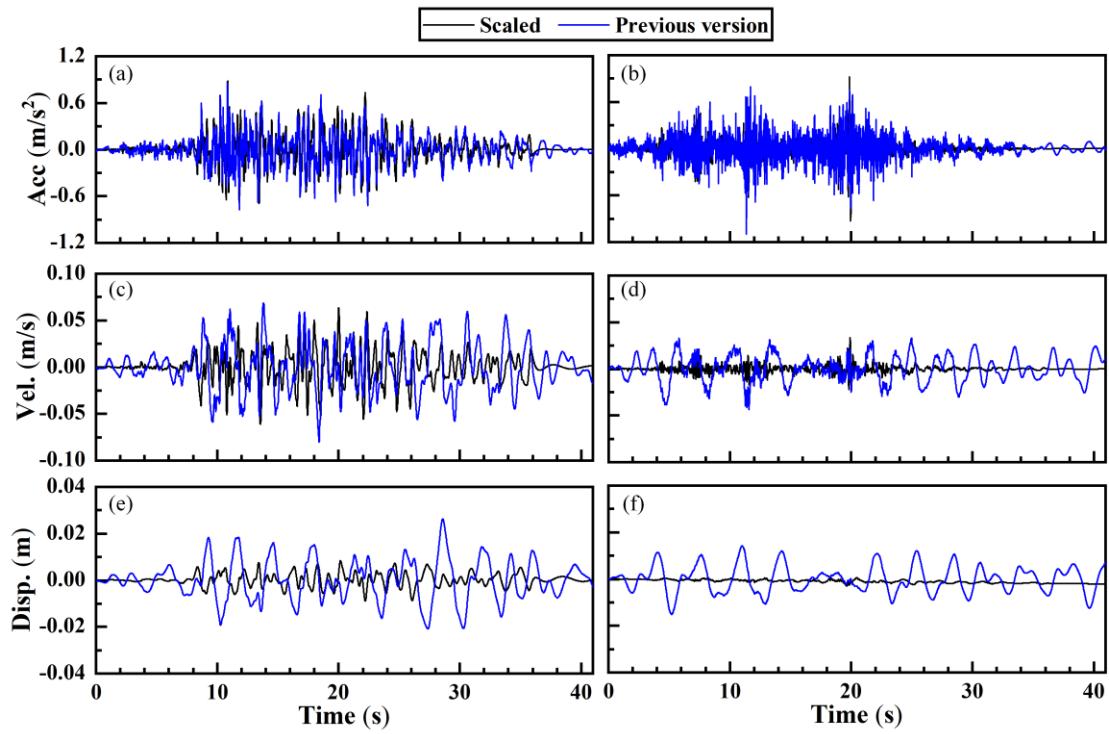
RadSAPs comparison (RSN 974)



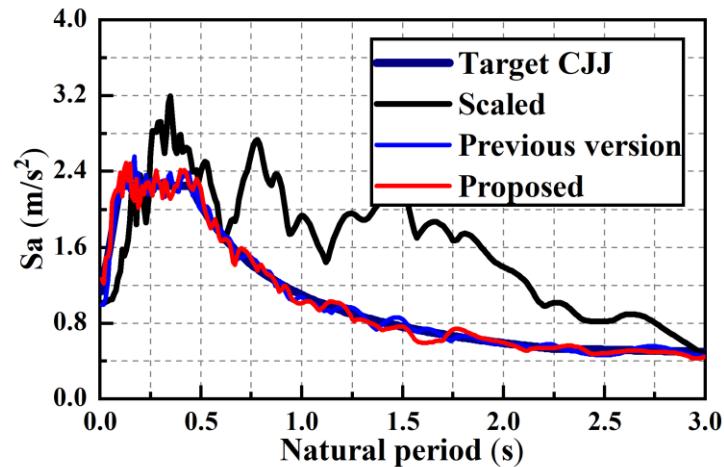
Time history comparison using proposed algorithm (RSN 974)



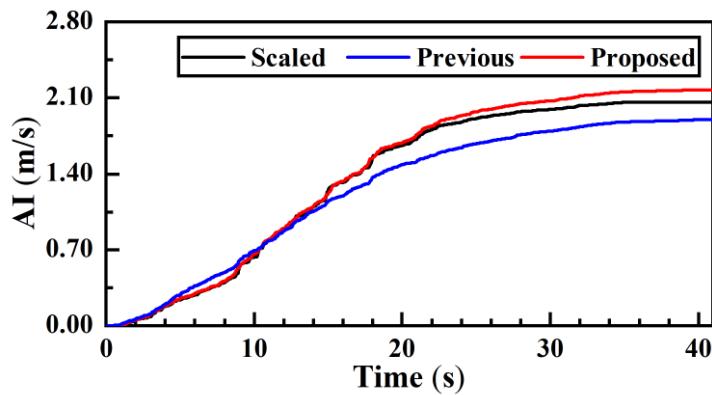
Time history comparison using previous version method (RSN 974)



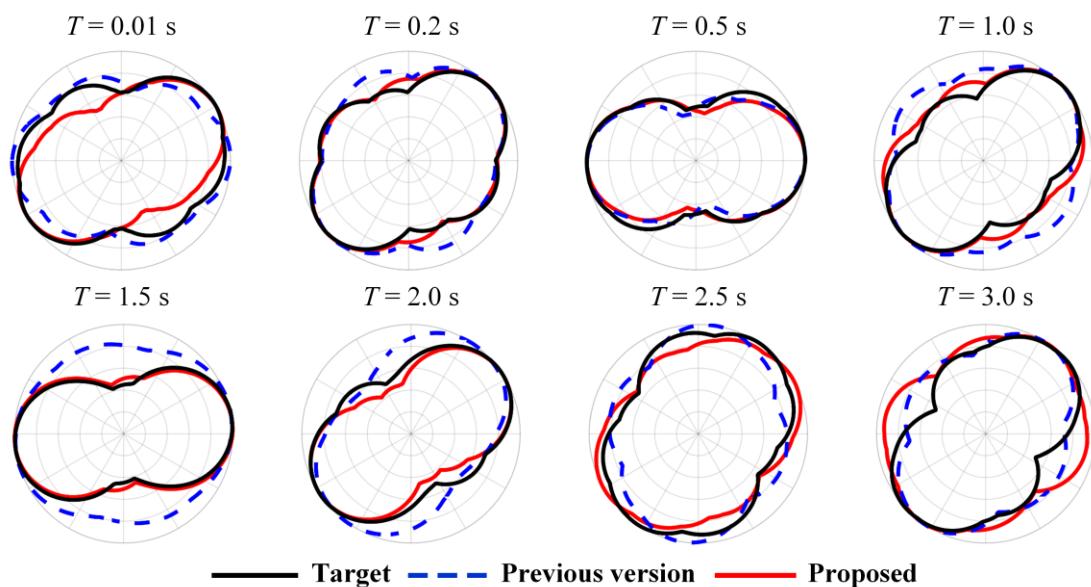
RotD100 response spectrum comparison (RSN 852)



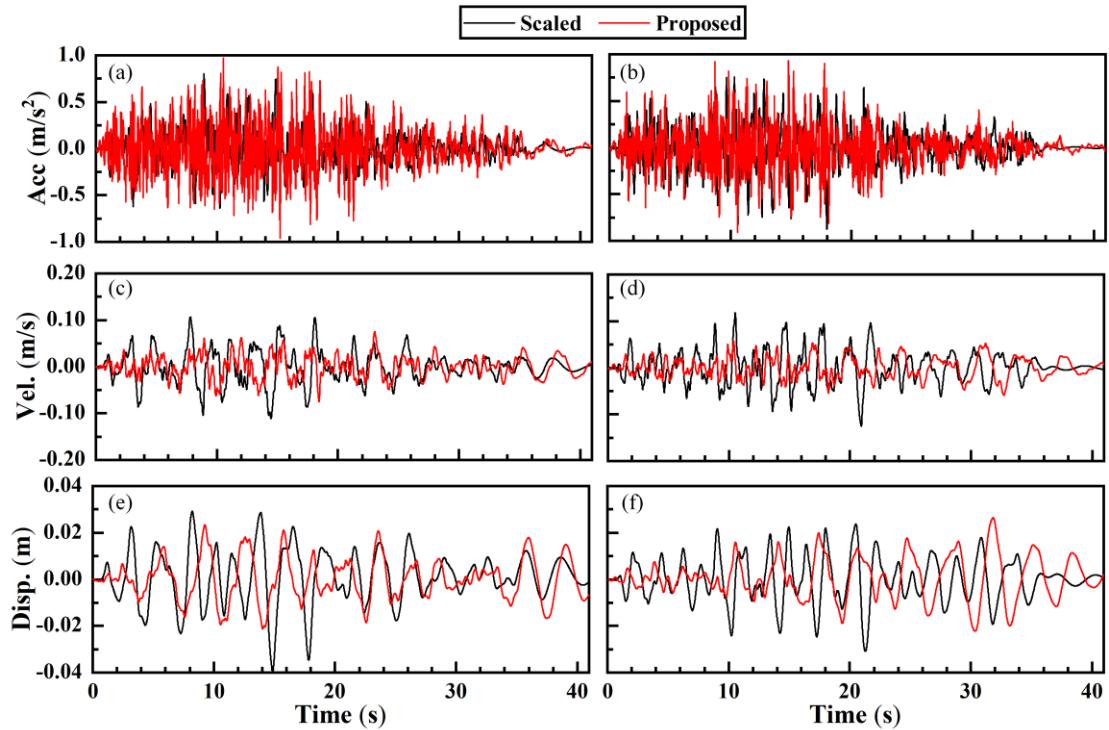
Arias intensity comparison (RSN 852)



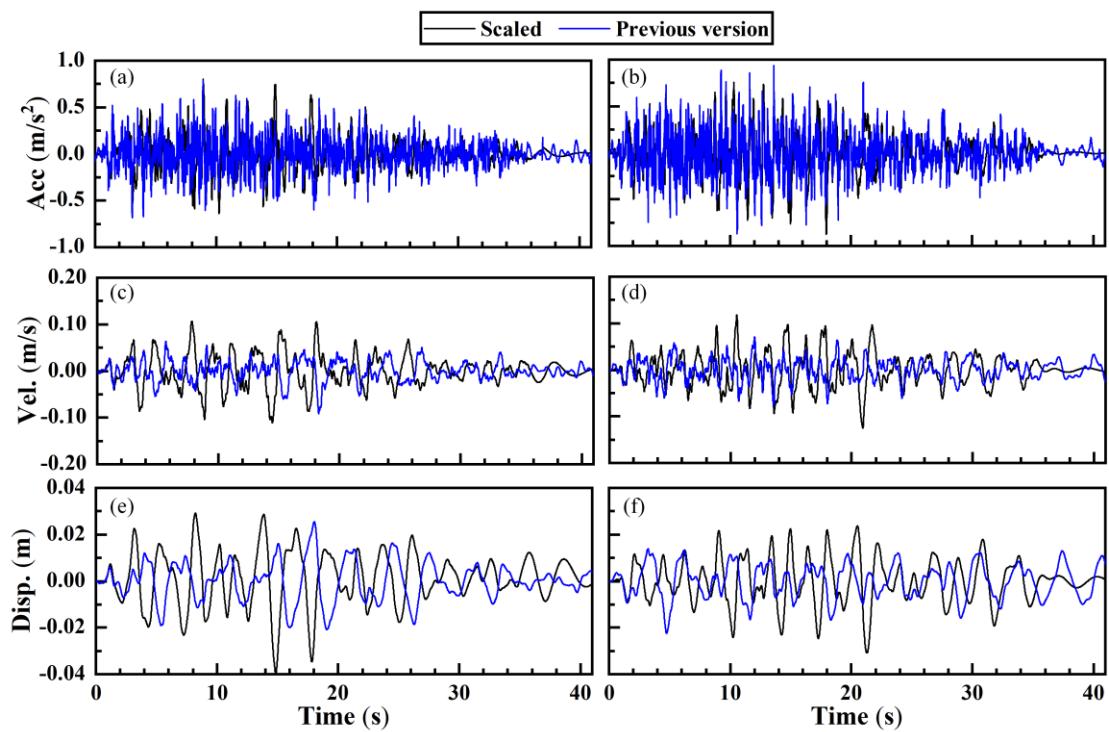
RadSAPs comparison (RSN 852)



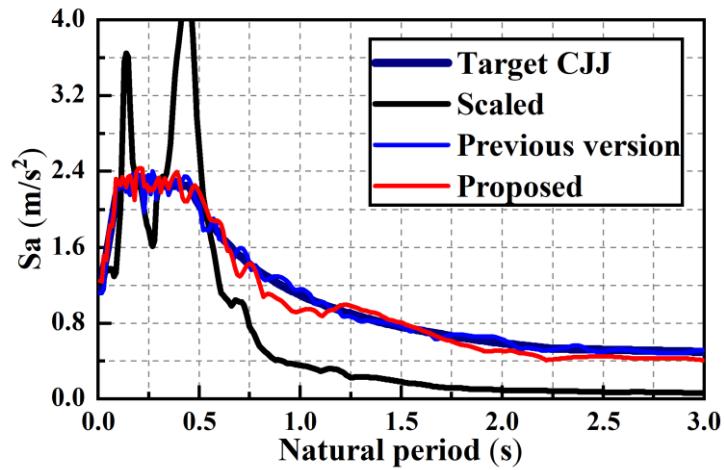
Time history comparison using proposed algorithm (RSN 852)



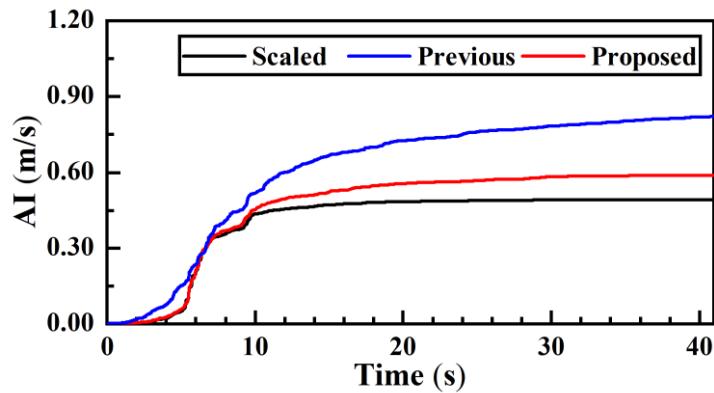
Time history comparison using previous version method (RSN 852)



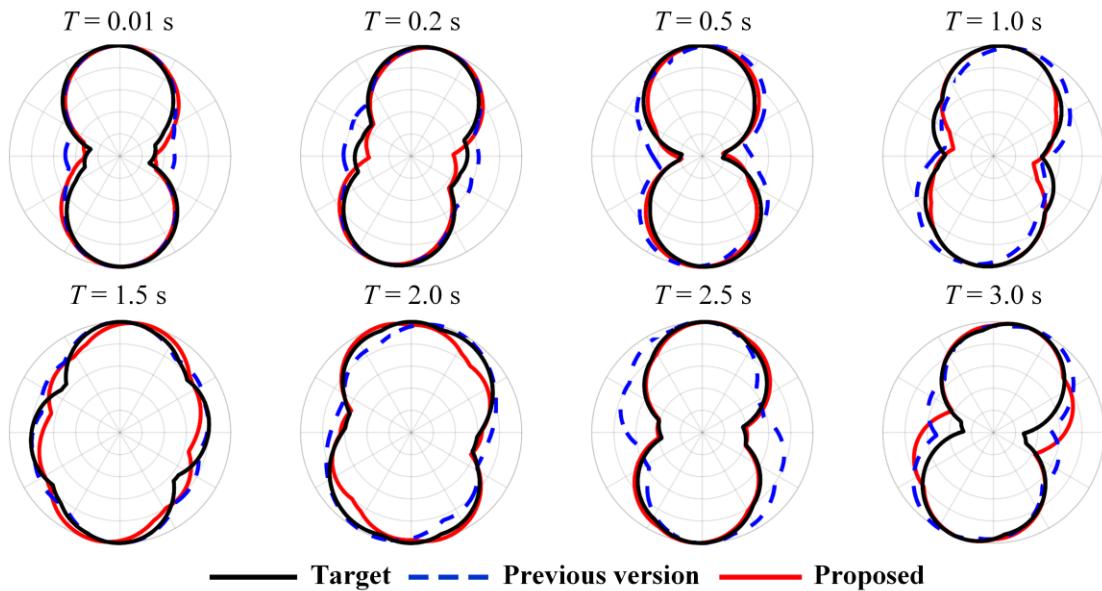
RotD100 response spectrum comparison (RSN 770)



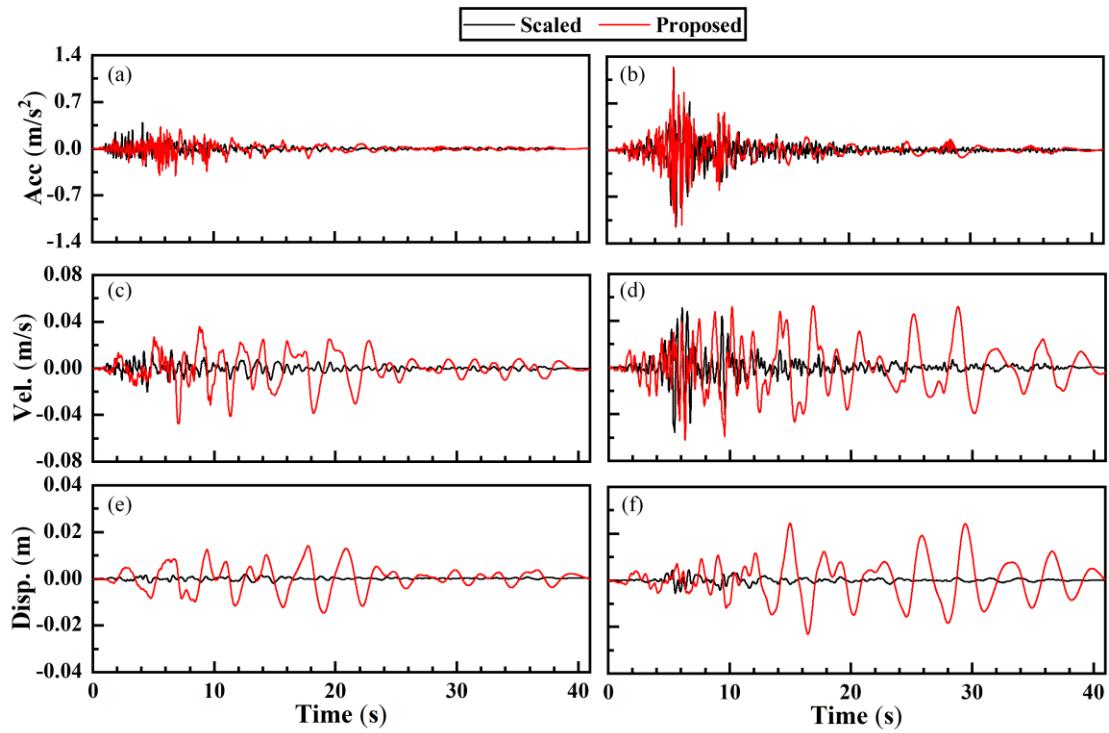
Arias intensity comparison (RSN 770)



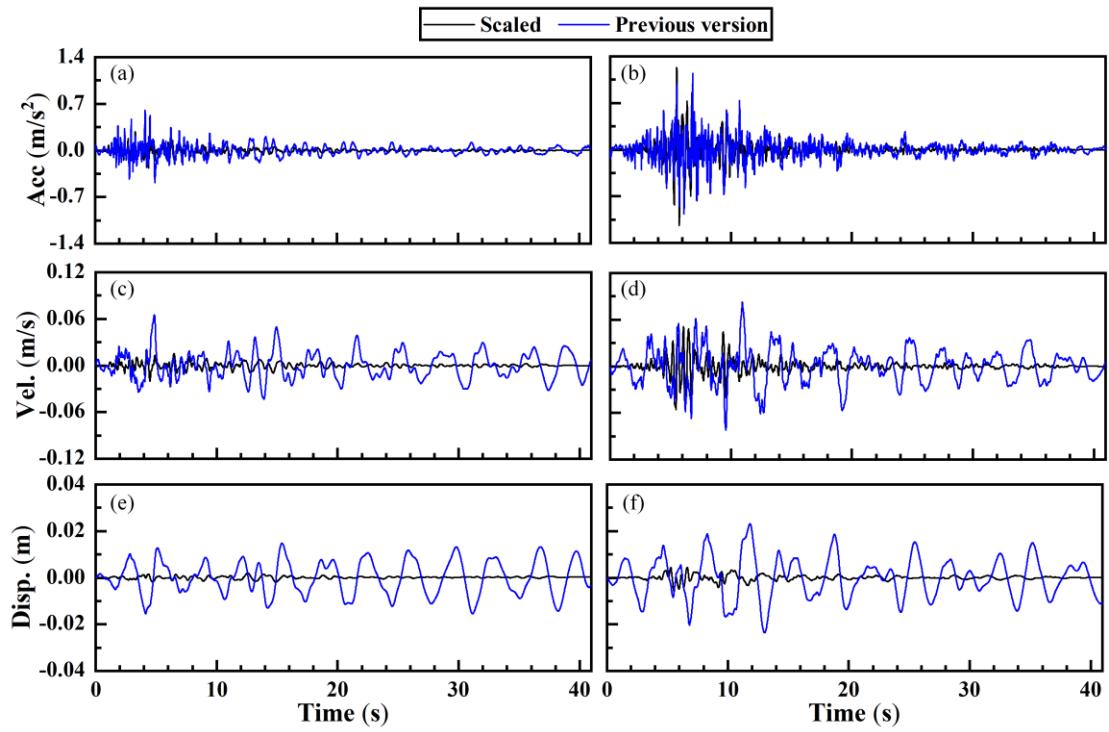
RadSAPs comparison (RSN 770)



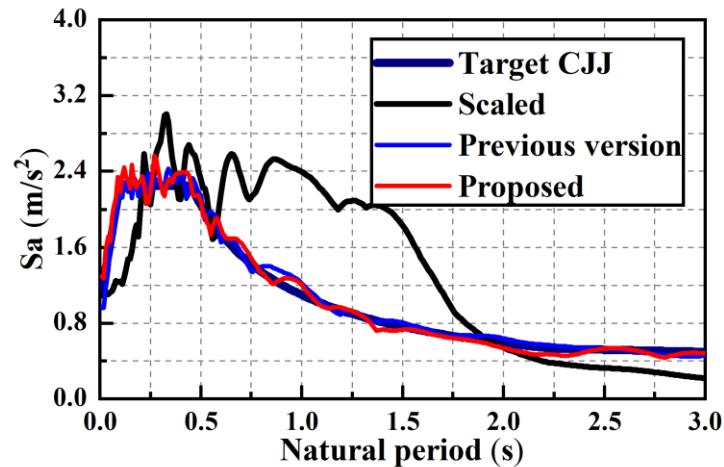
Time history comparison using proposed algorithm (RSN 770)



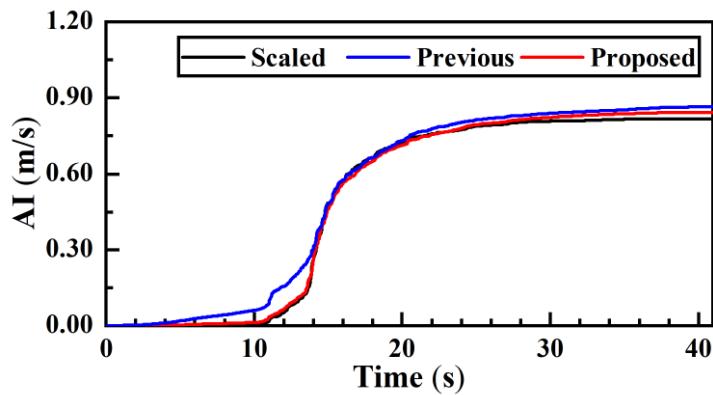
Time history comparison using previous version method (RSN 770)



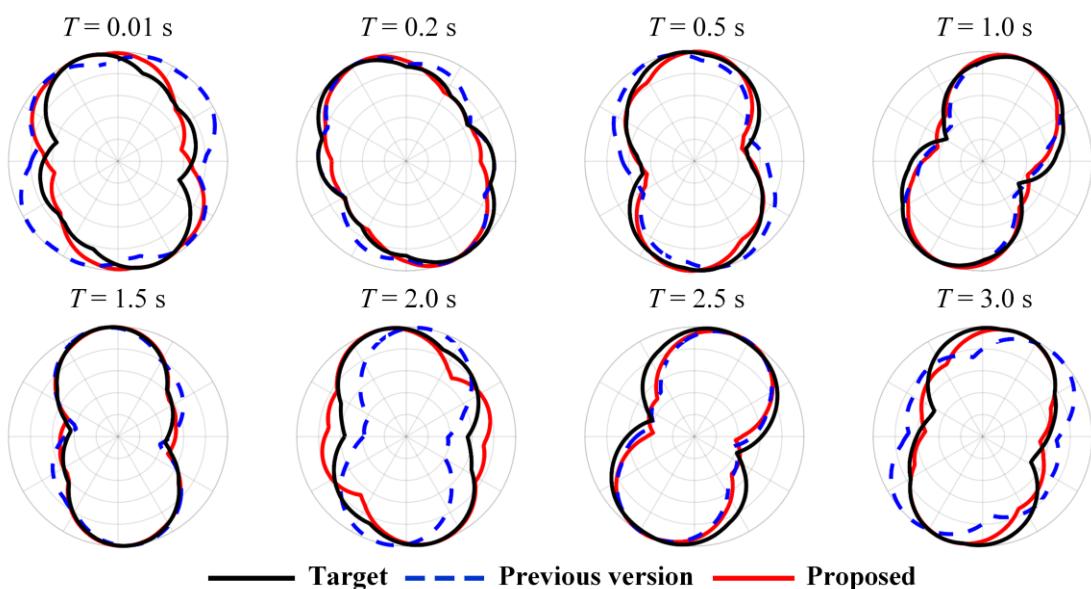
RotD100 response spectrum comparison (RSN 784)



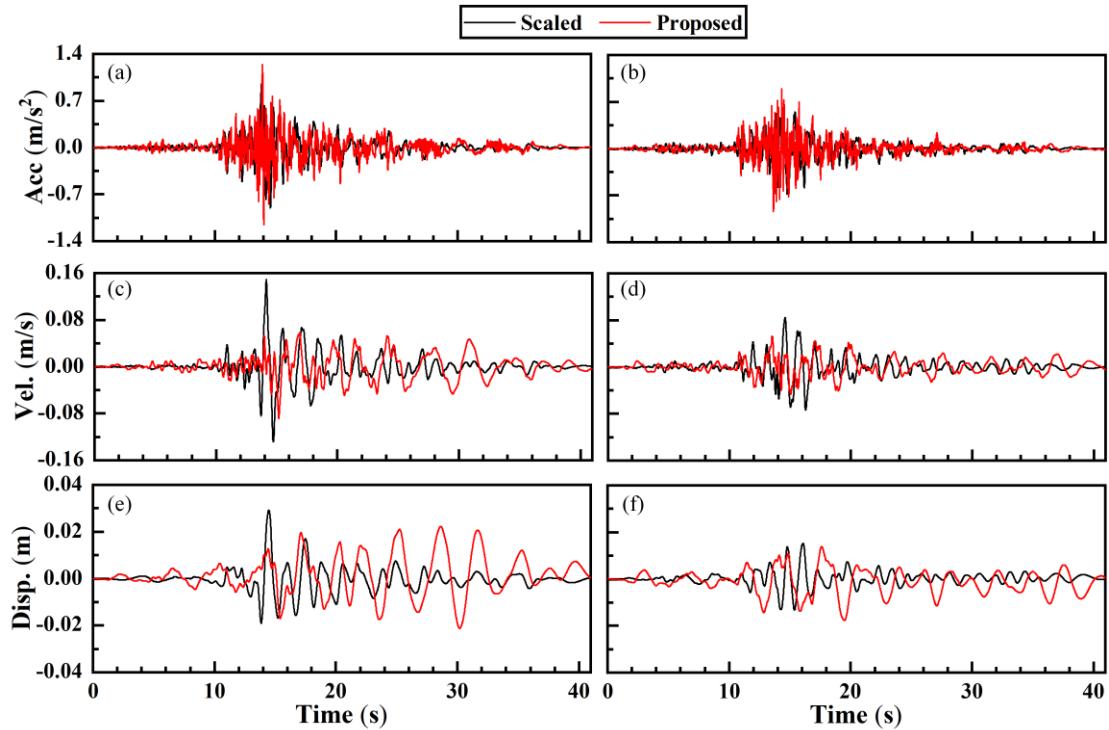
Arias intensity comparison (RSN 784)



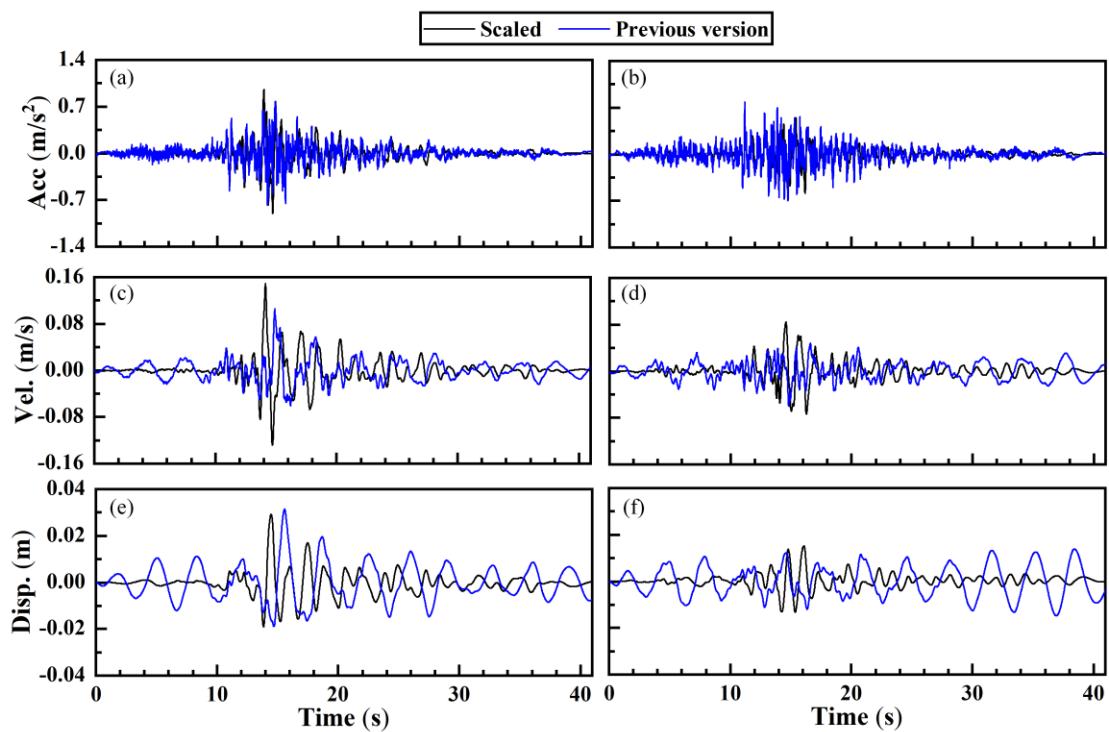
RadSAPs comparison (RSN 784)



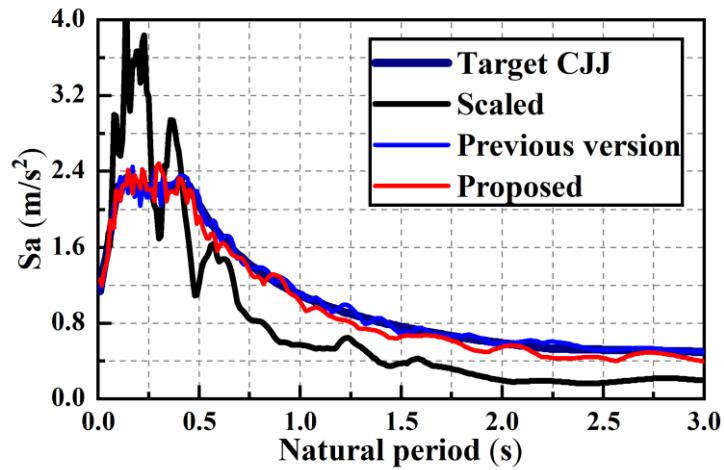
Time history comparison using proposed algorithm (RSN 784)



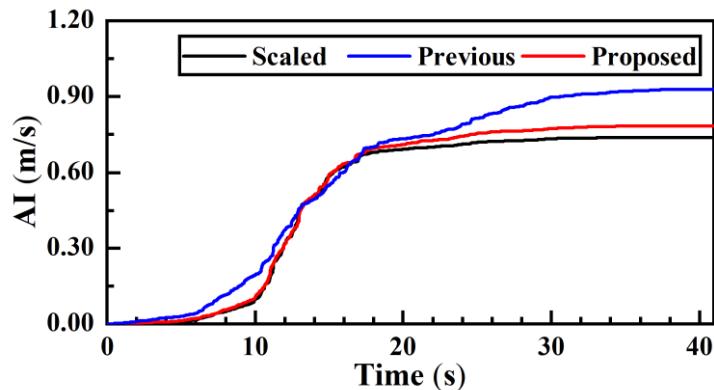
Time history comparison using previous version method (RSN 784)



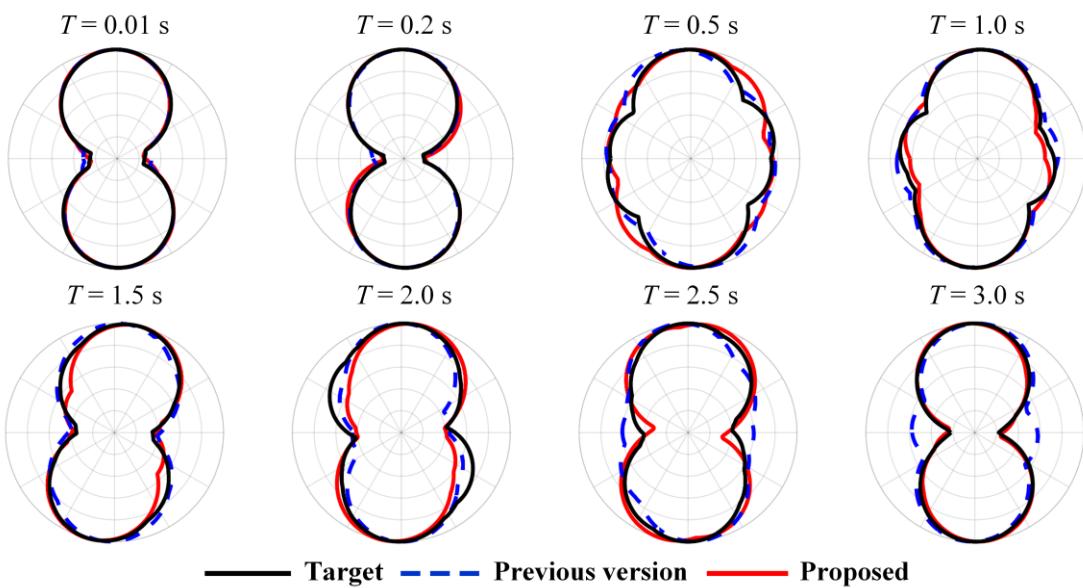
RotD100 response spectrum comparison (RSN 288)



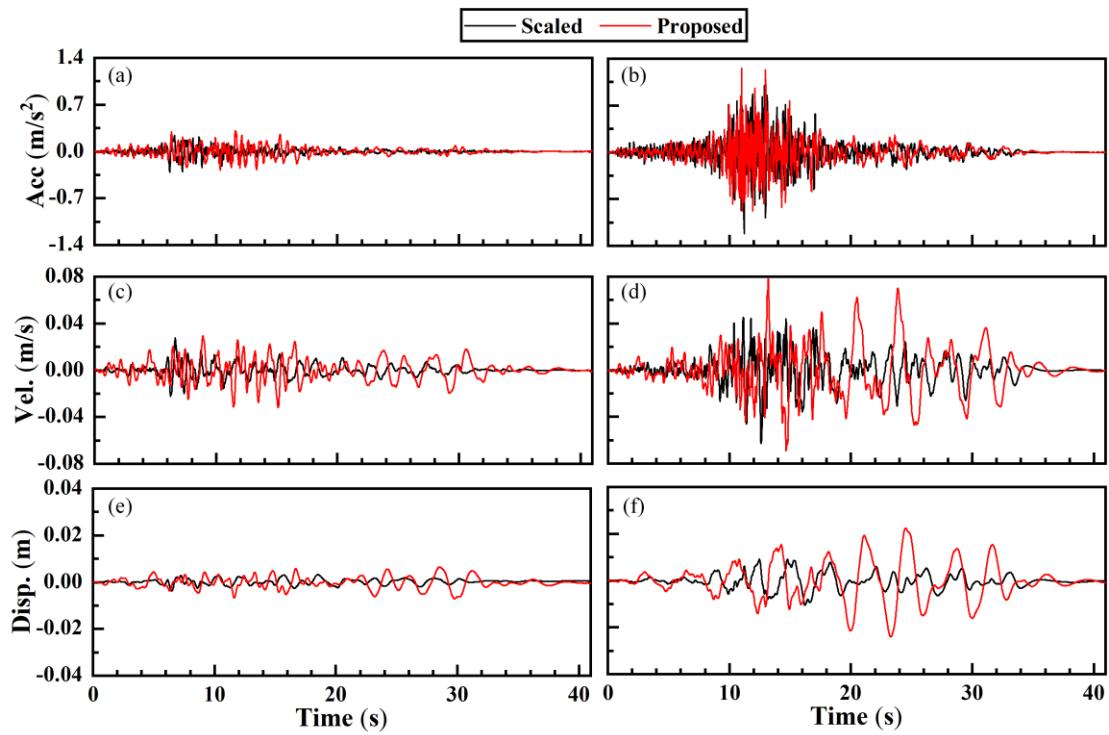
Arias intensity comparison (RSN 288)



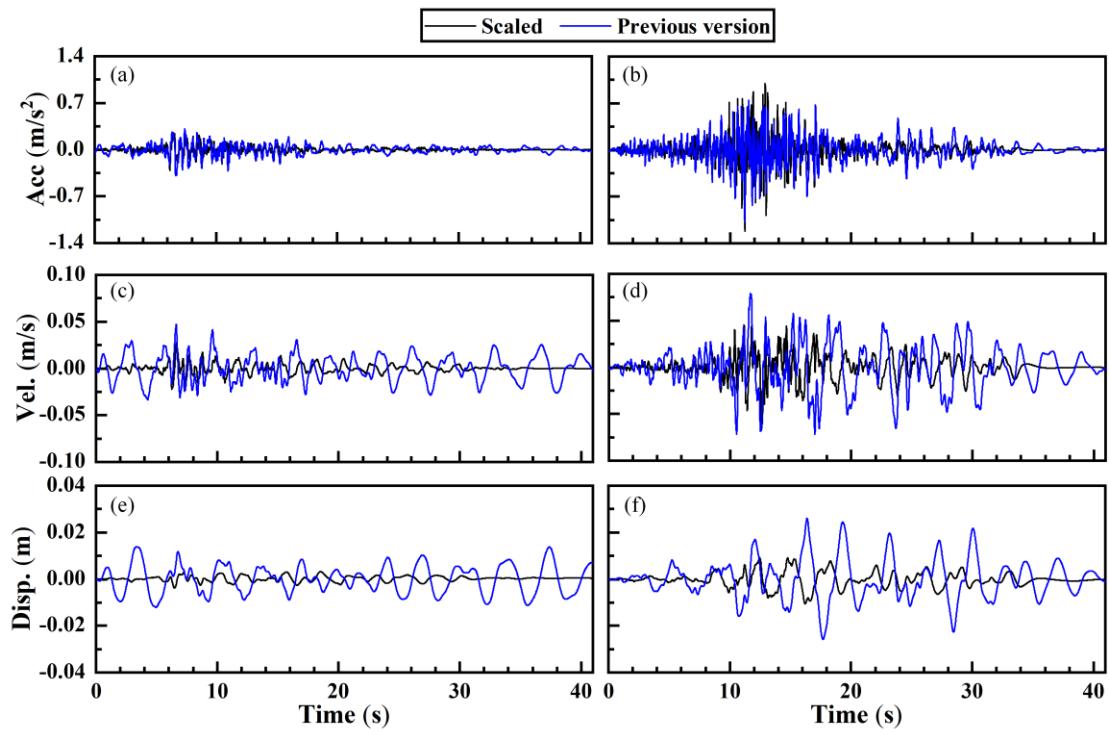
RadSAPs comparison (RSN 288)



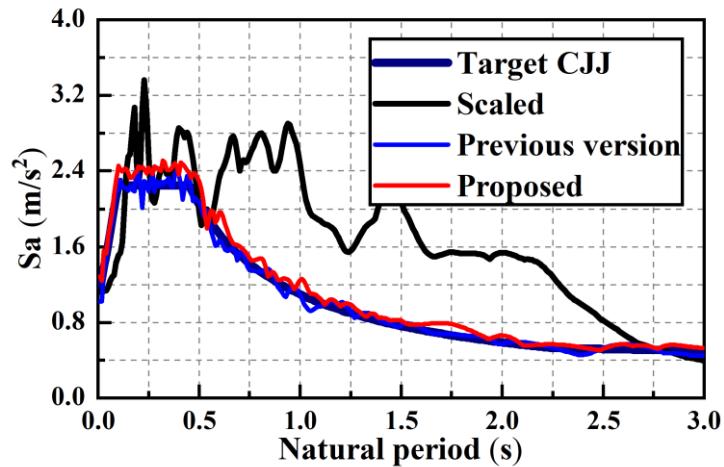
Time history comparison using proposed algorithm (RSN 288)



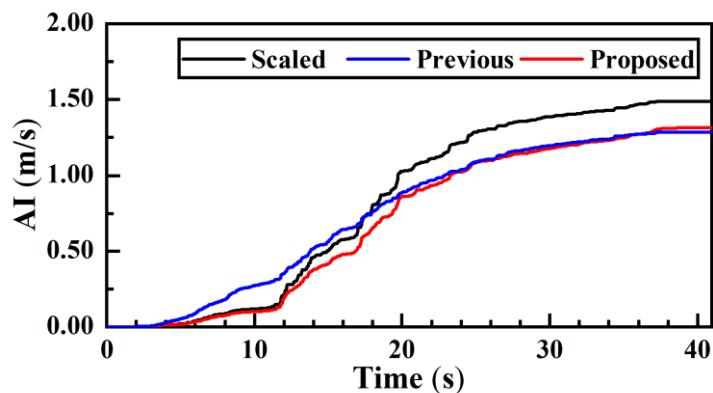
Time history comparison using previous version method (RSN 288)



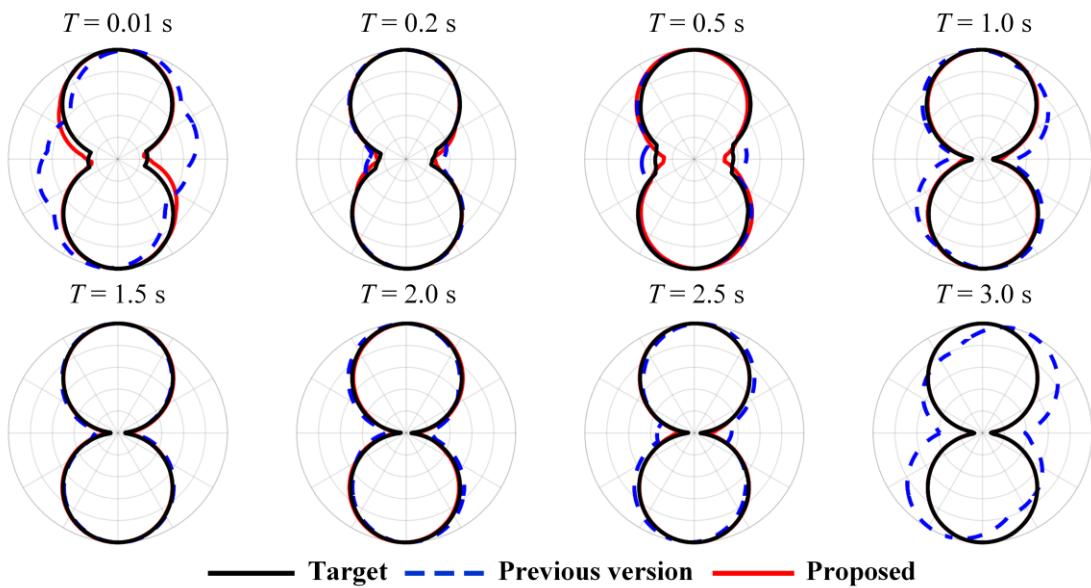
RotD100 response spectrum comparison (RSN 302)



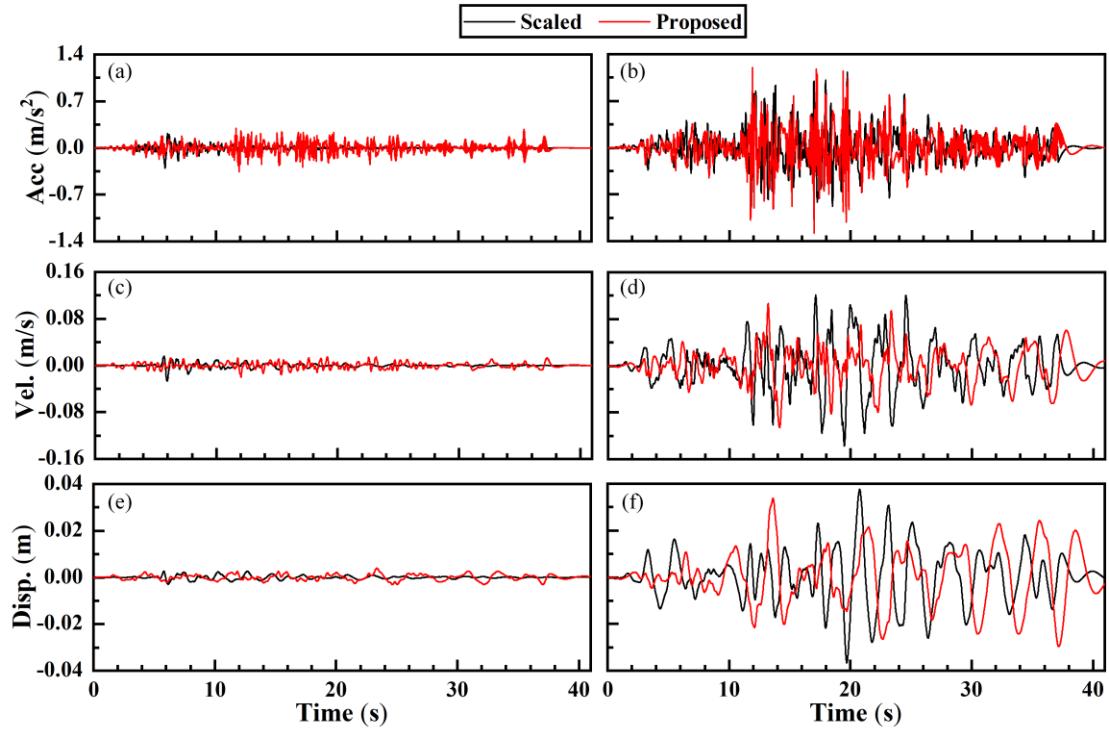
Arias intensity comparison (RSN 302)



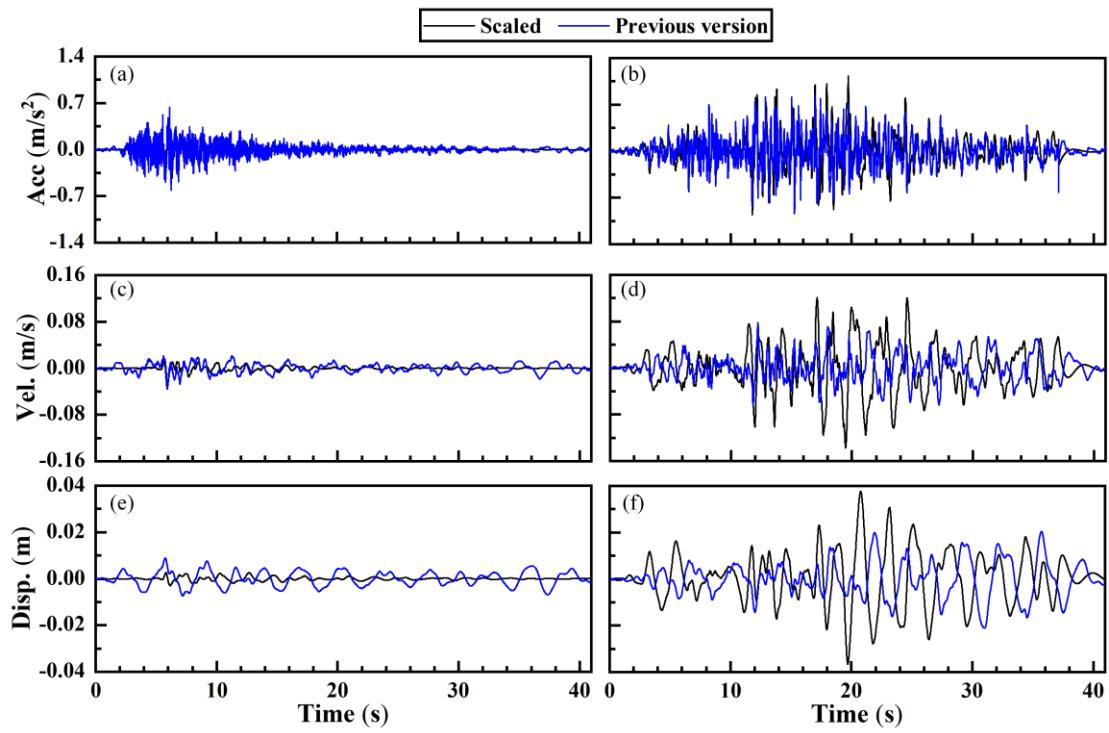
RadSAPs comparison (RSN 302)



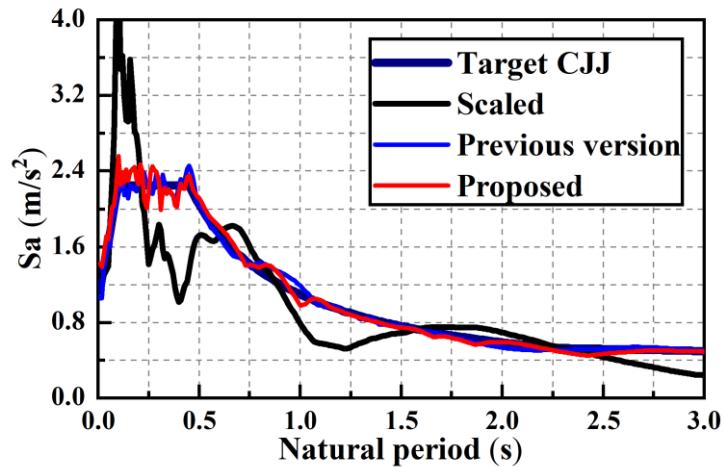
Time history comparison using proposed algorithm (RSN 302)



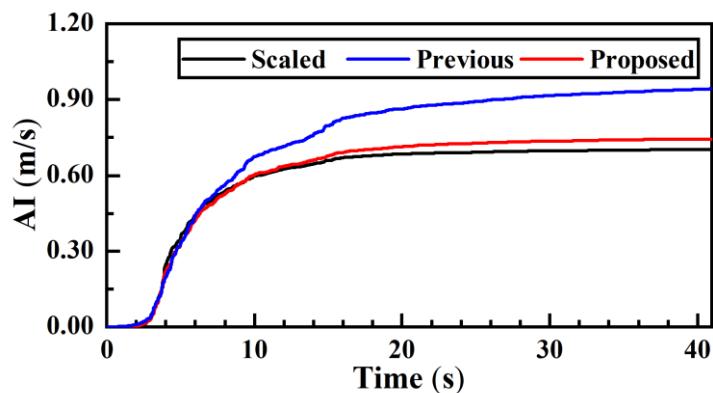
Time history comparison using previous version method (RSN 302)



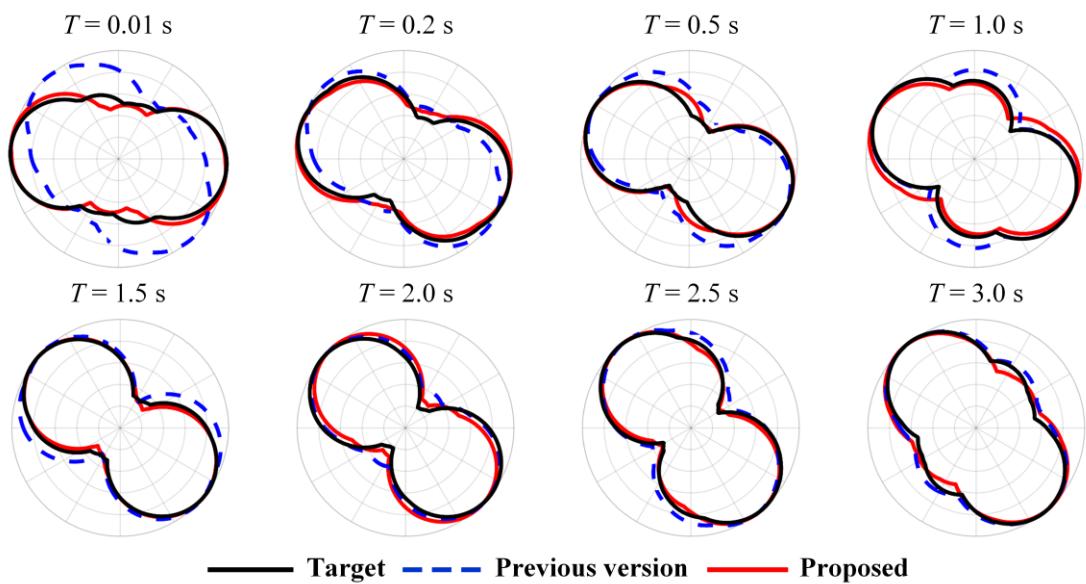
RotD100 response spectrum comparison (RSN 209)



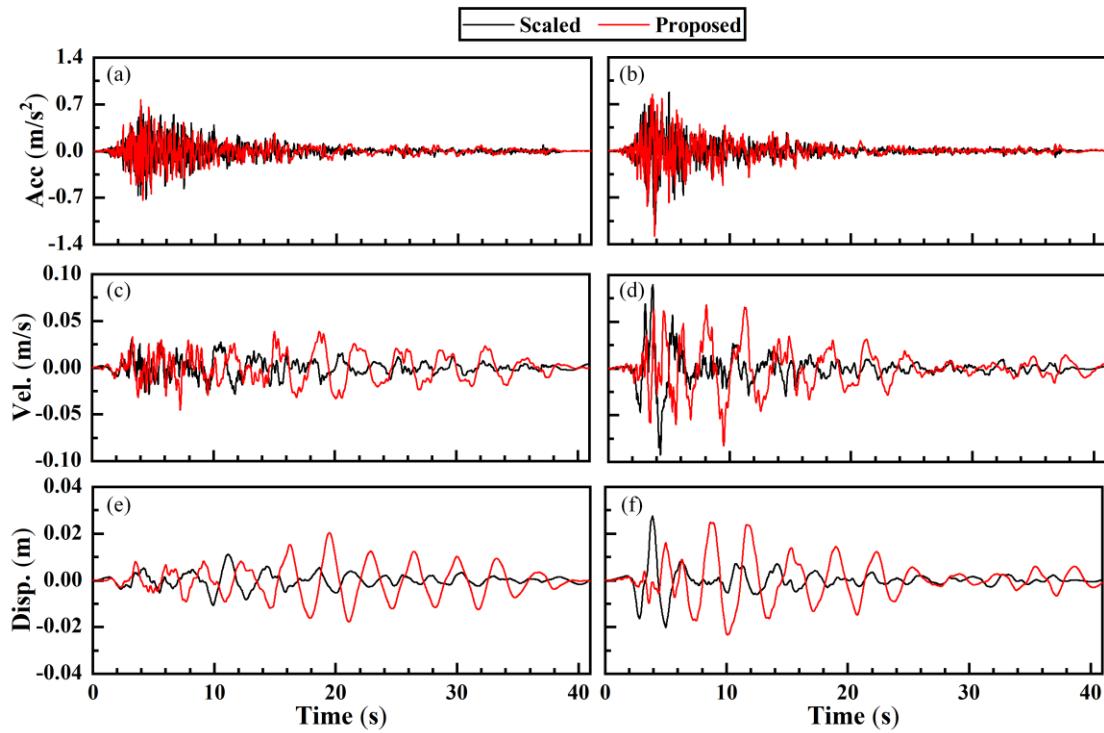
Arias intensity comparison (RSN 209)



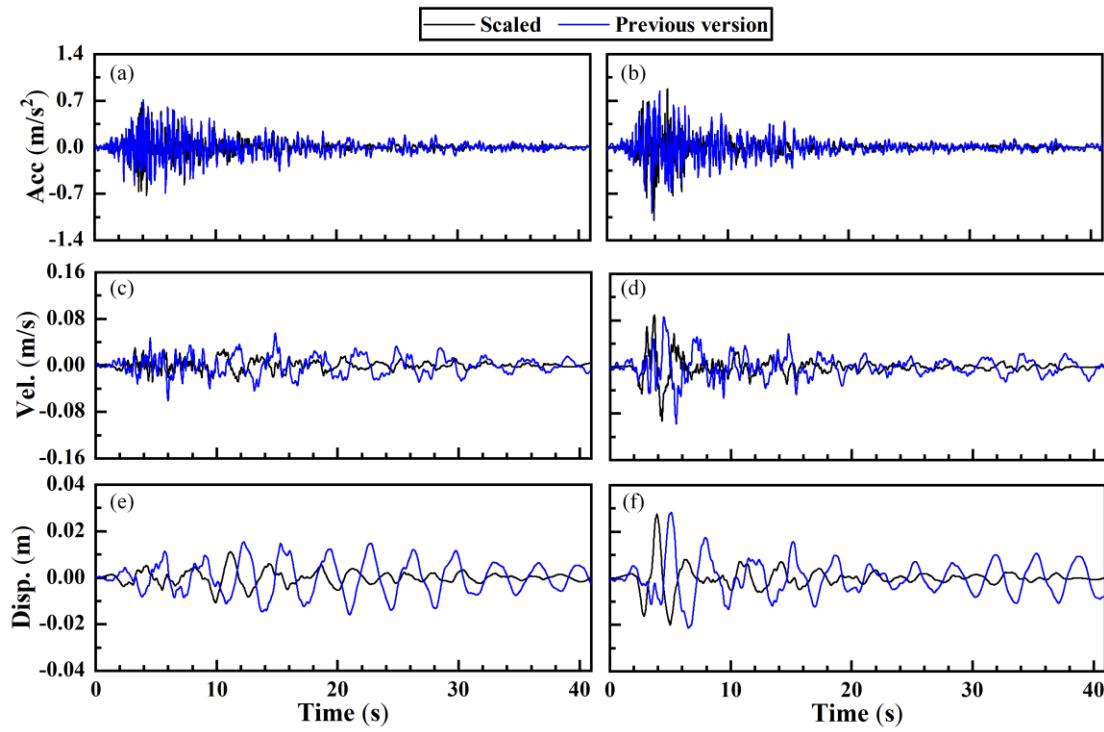
RadSAPs comparison (RSN 209)



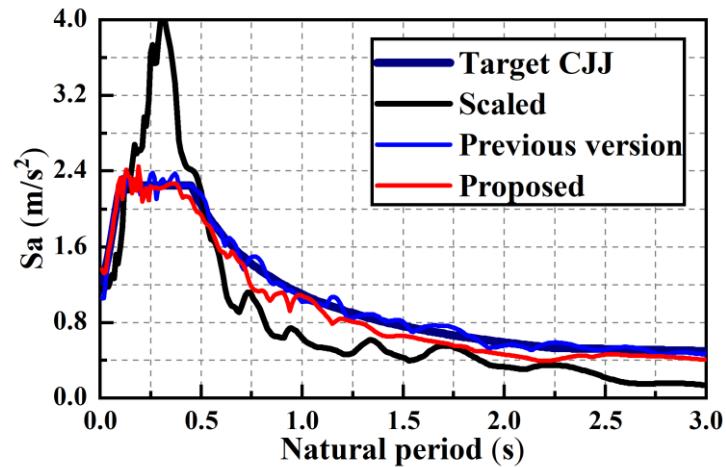
Time history comparison using proposed algorithm (RSN 209)



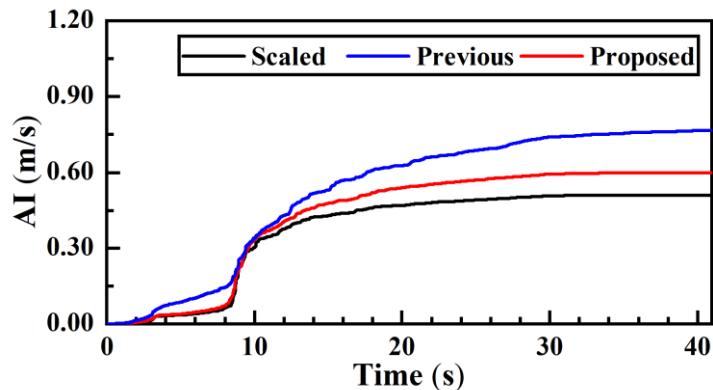
Time history comparison using previous version method (RSN 209)



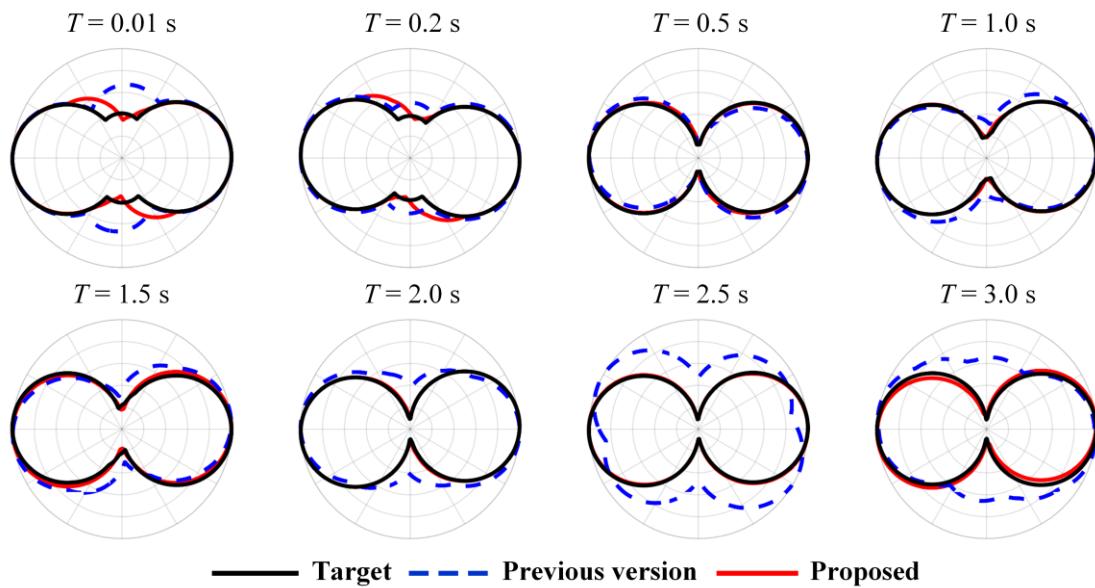
RotD100 response spectrum comparison (RSN 43)



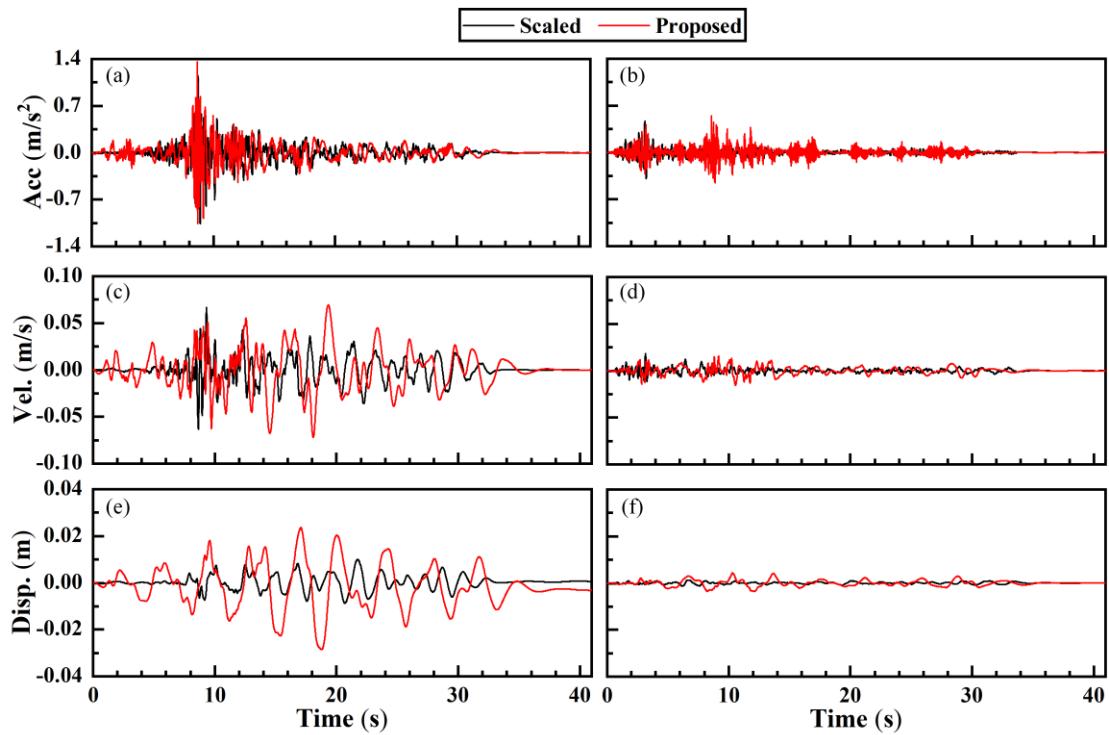
Arias intensity comparison (RSN 43)



RadSAPs comparison (RSN 43)



Time history comparison using proposed algorithm (RSN 43)



Time history comparison using previous version method (RSN 43)

