

**Digital Appendix for:**

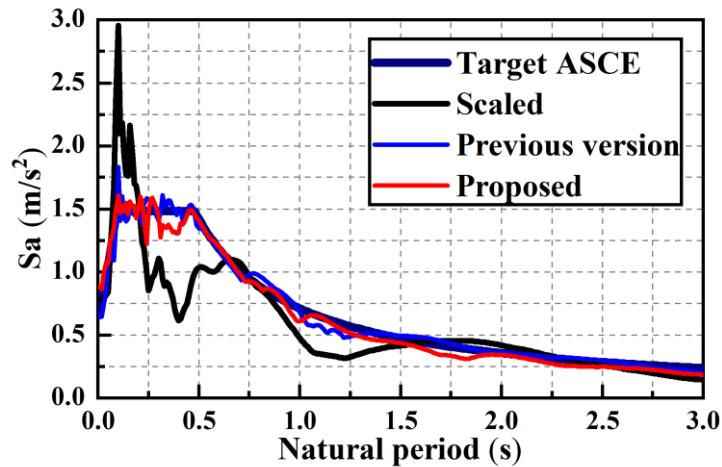
**An algorithm for spectrally matching bi-directional ground motions to a target RotD100 spectrum while maintaining the radial spectral acceleration pattern**

Jian Zhou, Akira Igarashi

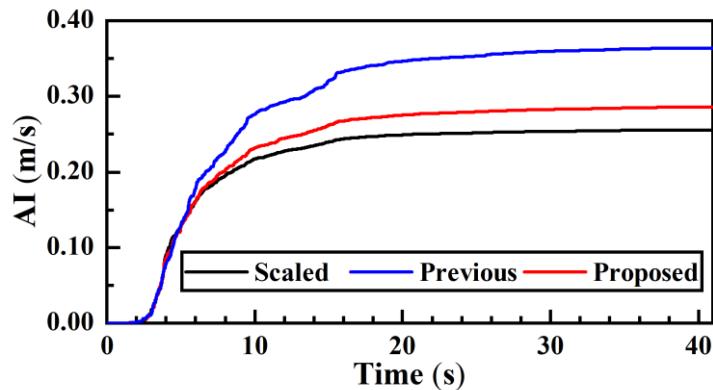
*Disaster Prevention Research Institute, Kyoto University*

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

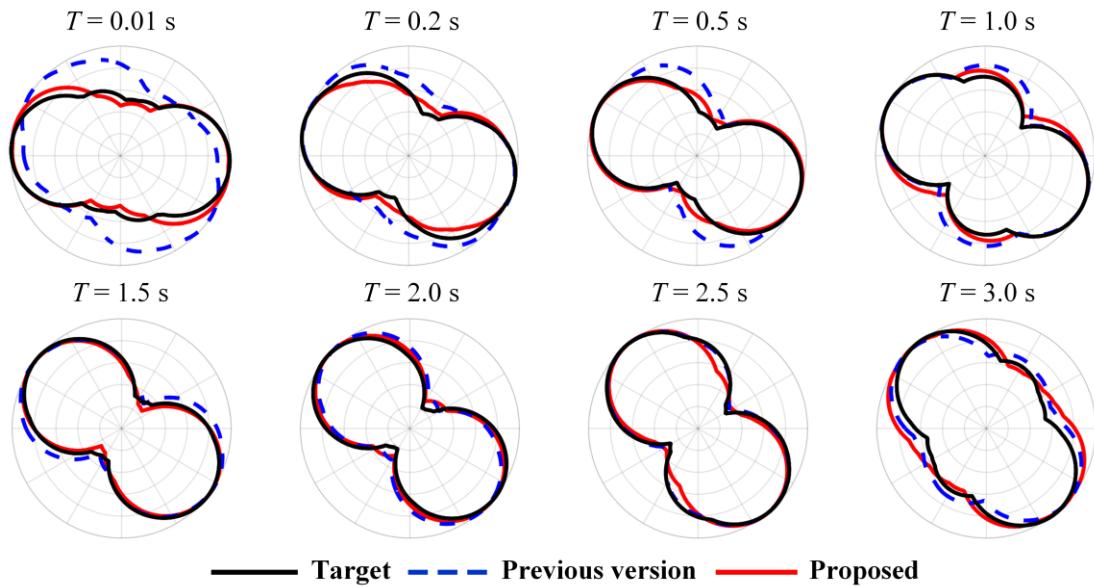
RotD100 response spectrum comparison (RSN 209)



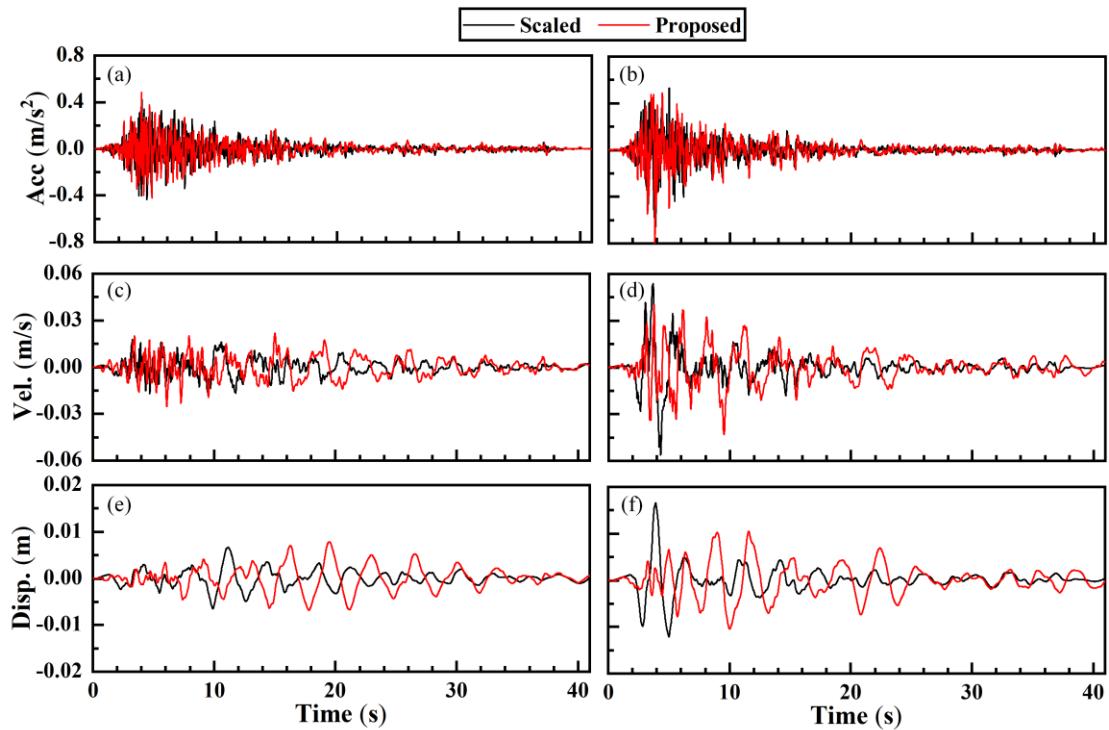
Arias intensity comparison (RSN 209)



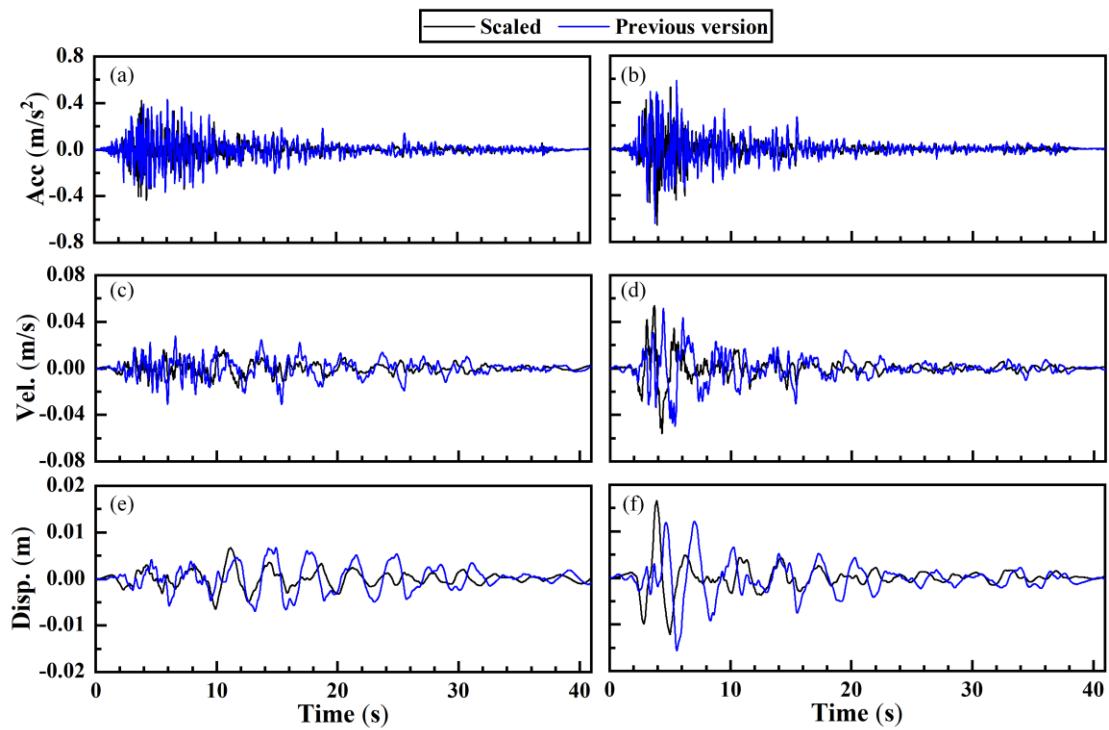
RadSAPs comparison (RSN 209)



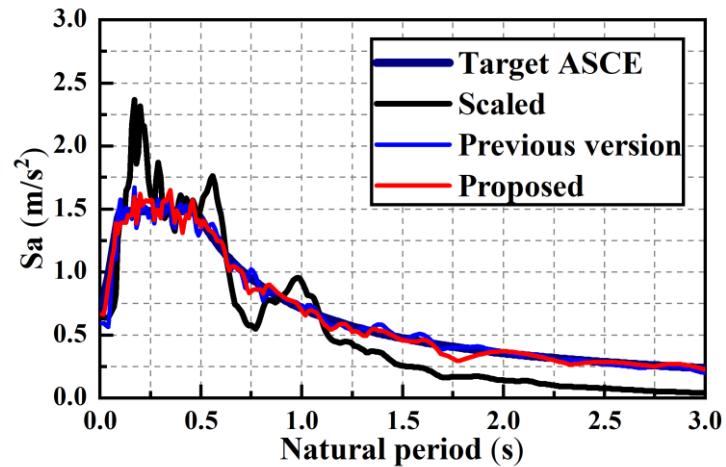
Time history comparison using proposed algorithm (RSN 209)



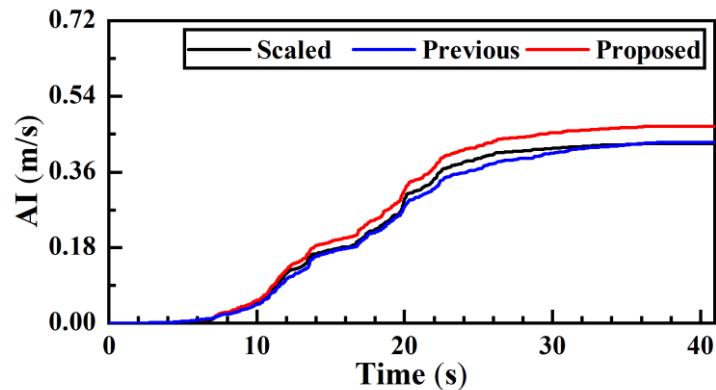
Time history comparison using previous version method (RSN 209)



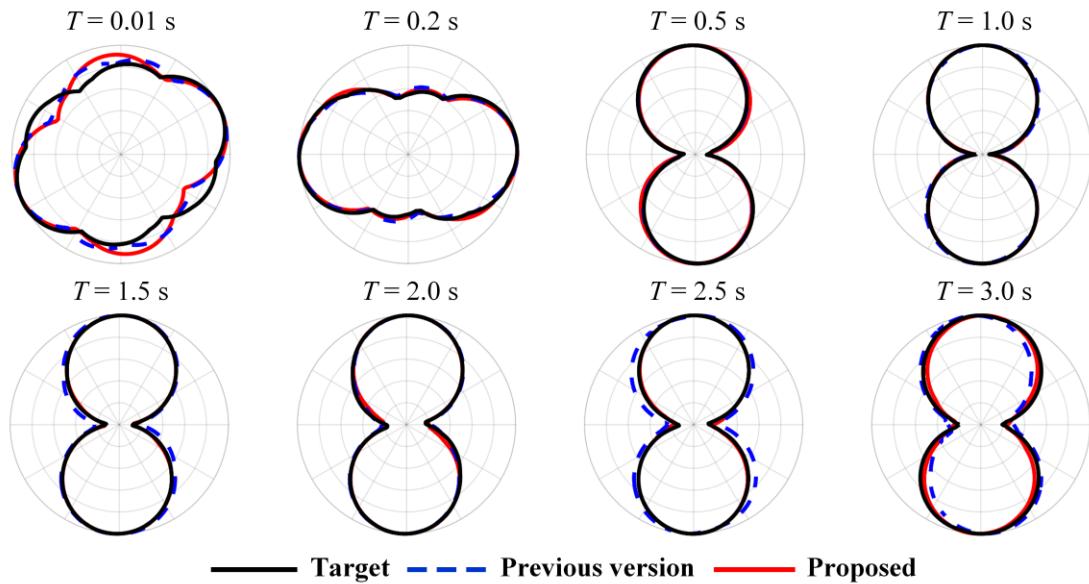
RotD100 response spectrum comparison (RSN 974)



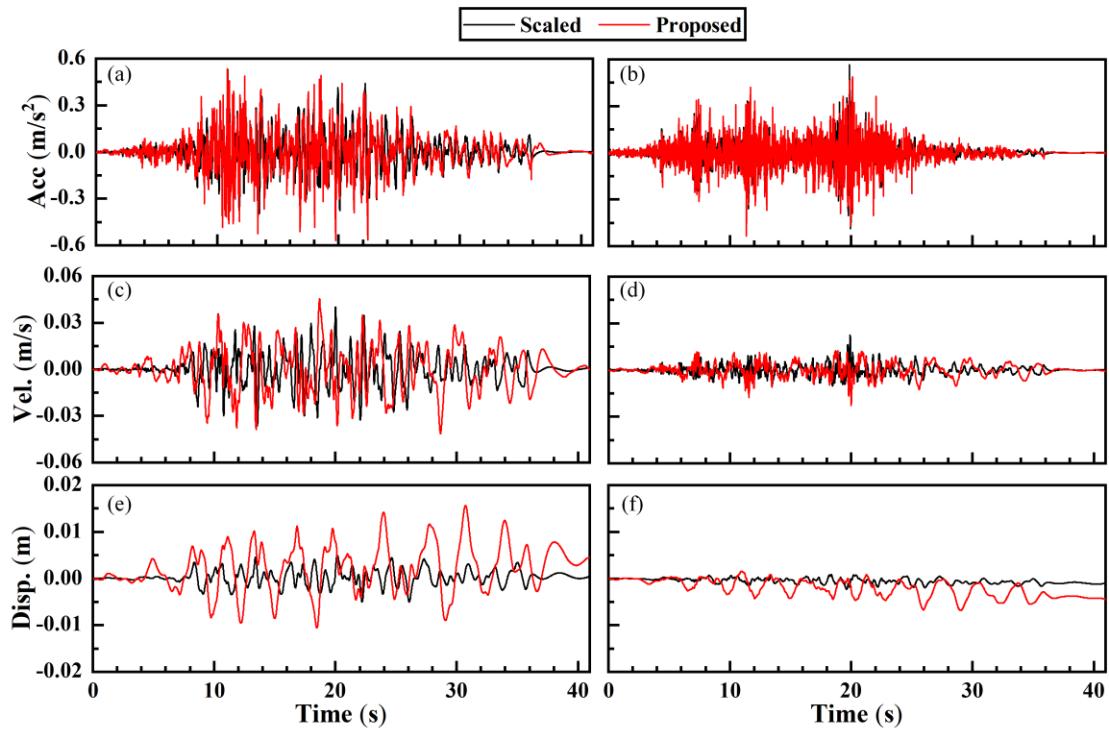
Arias intensity comparison (RSN 974)



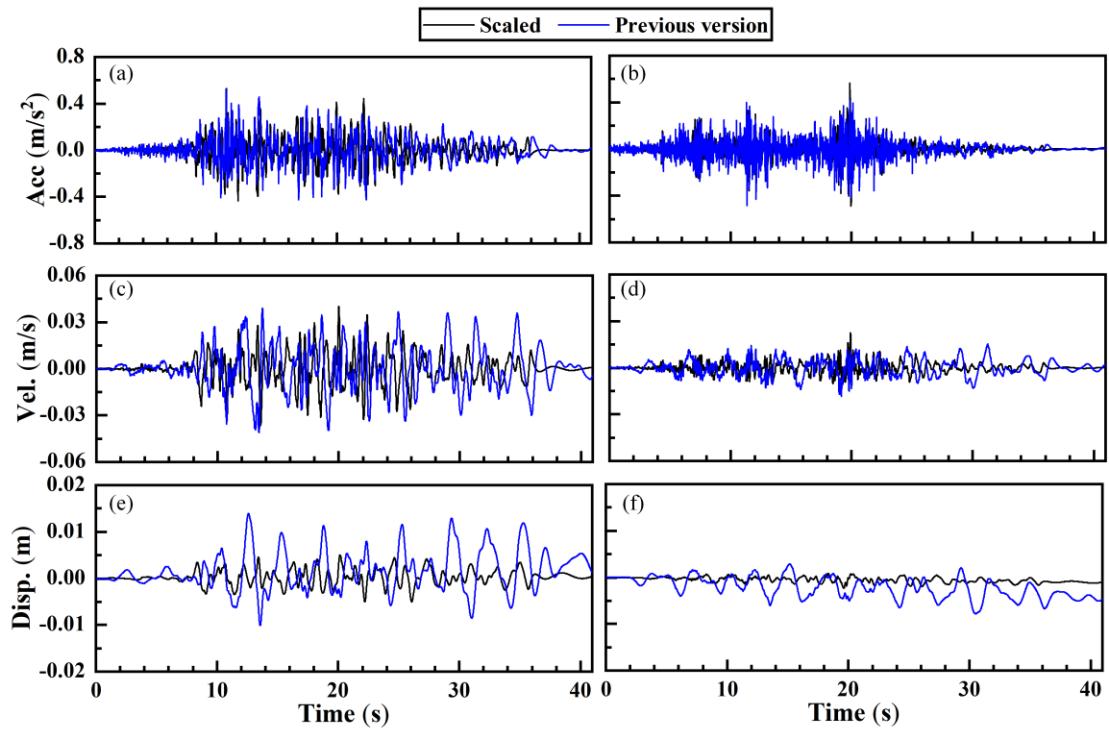
RadSAPs comparison (RSN 974)



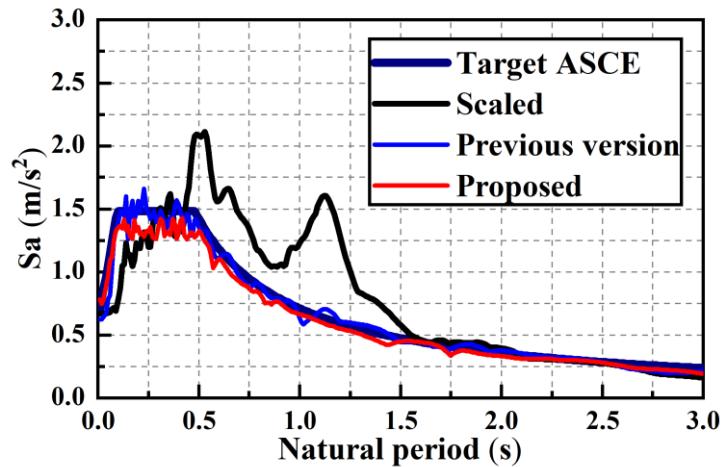
Time history comparison using proposed algorithm (RSN 974)



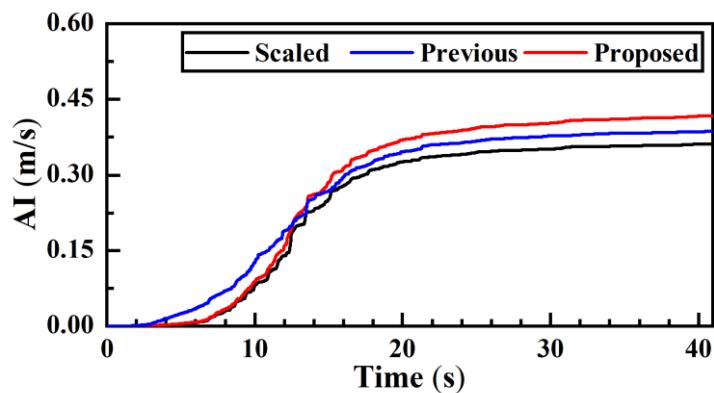
Time history comparison using previous version method (RSN 974)



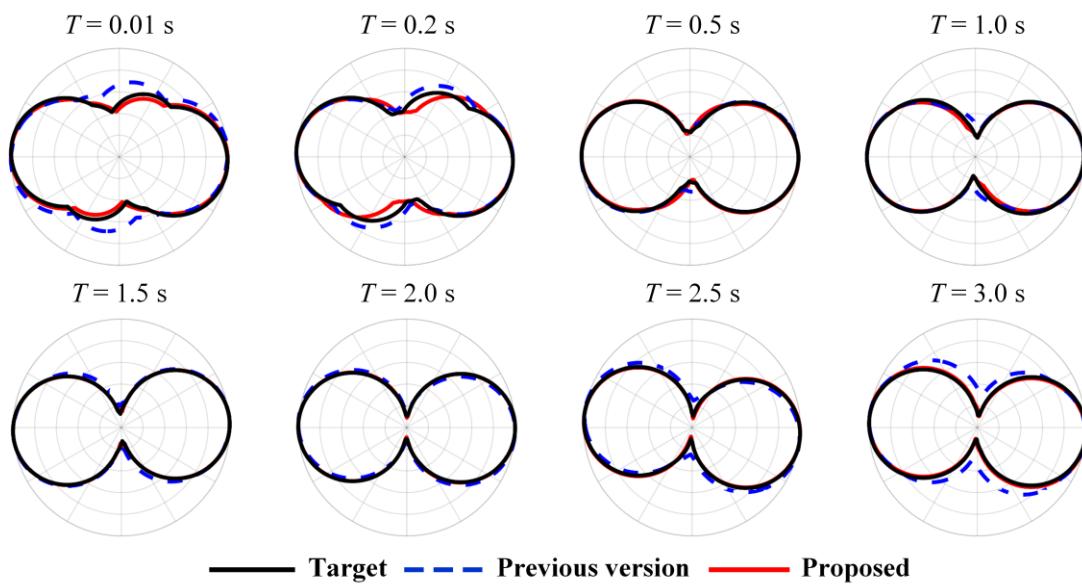
RotD100 response spectrum comparison (RSN 8)



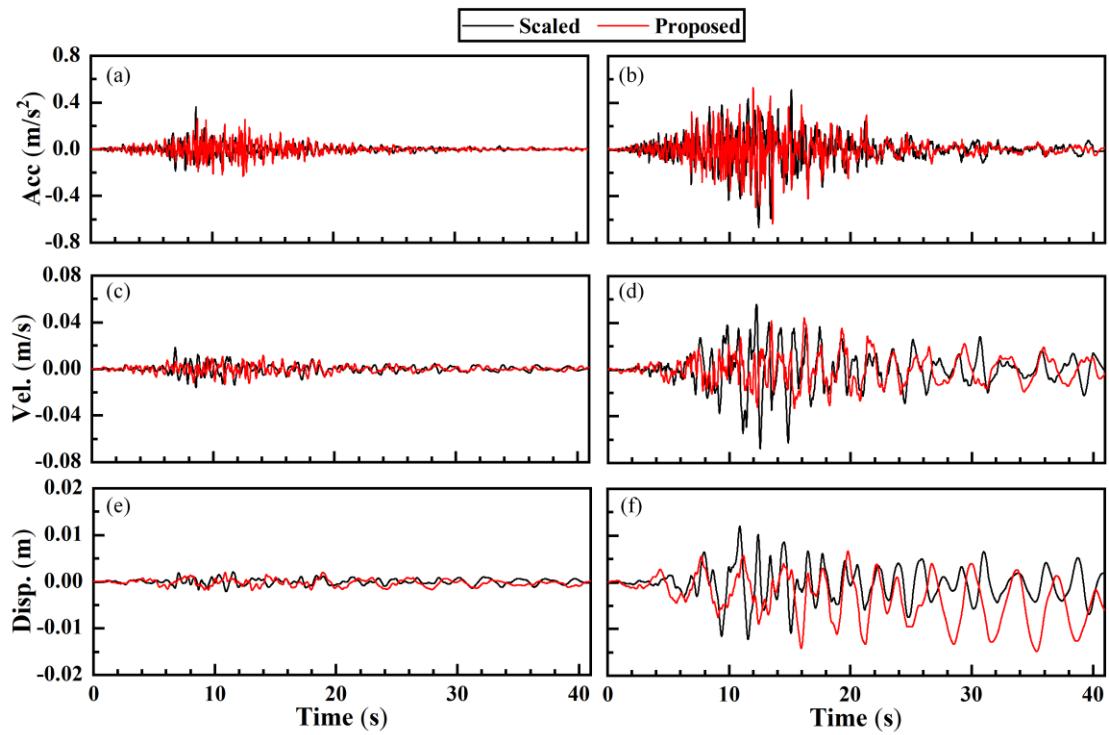
Arias intensity comparison (RSN 8)



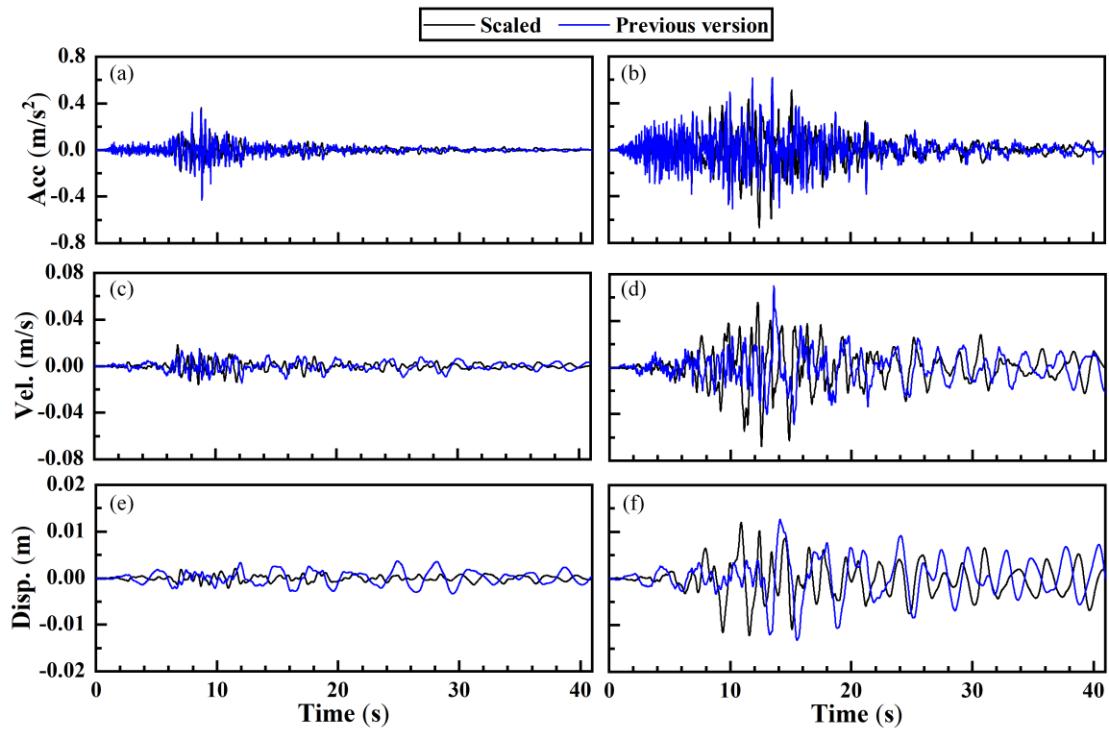
RadSAPs comparison (RSN 8)



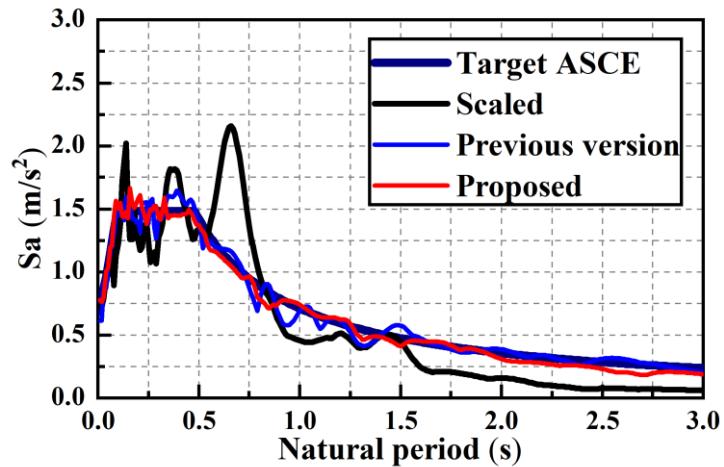
Time history comparison using proposed algorithm (RSN 8)



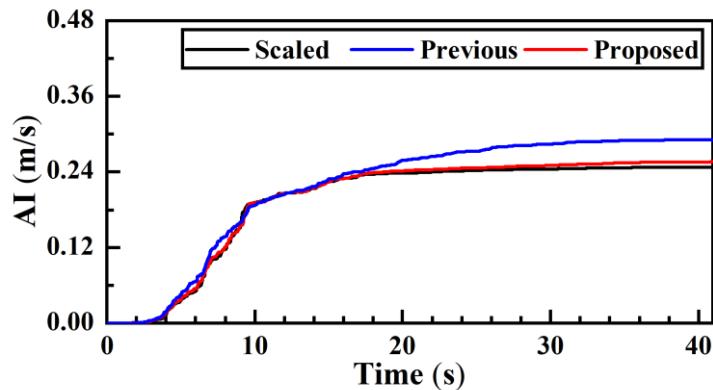
Time history comparison using previous version method (RSN 8)



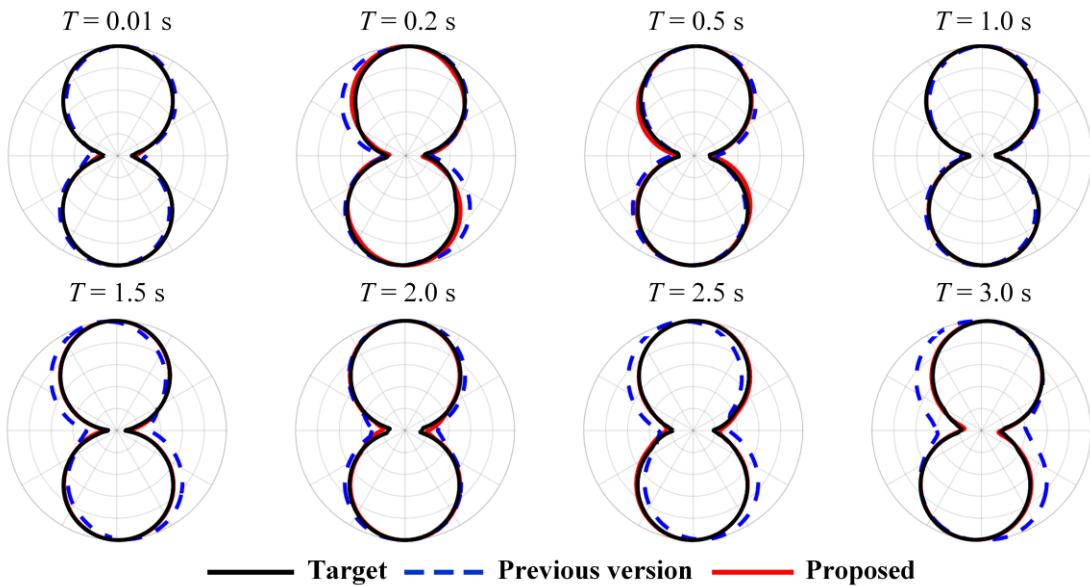
RotD100 response spectrum comparison (RSN 752)



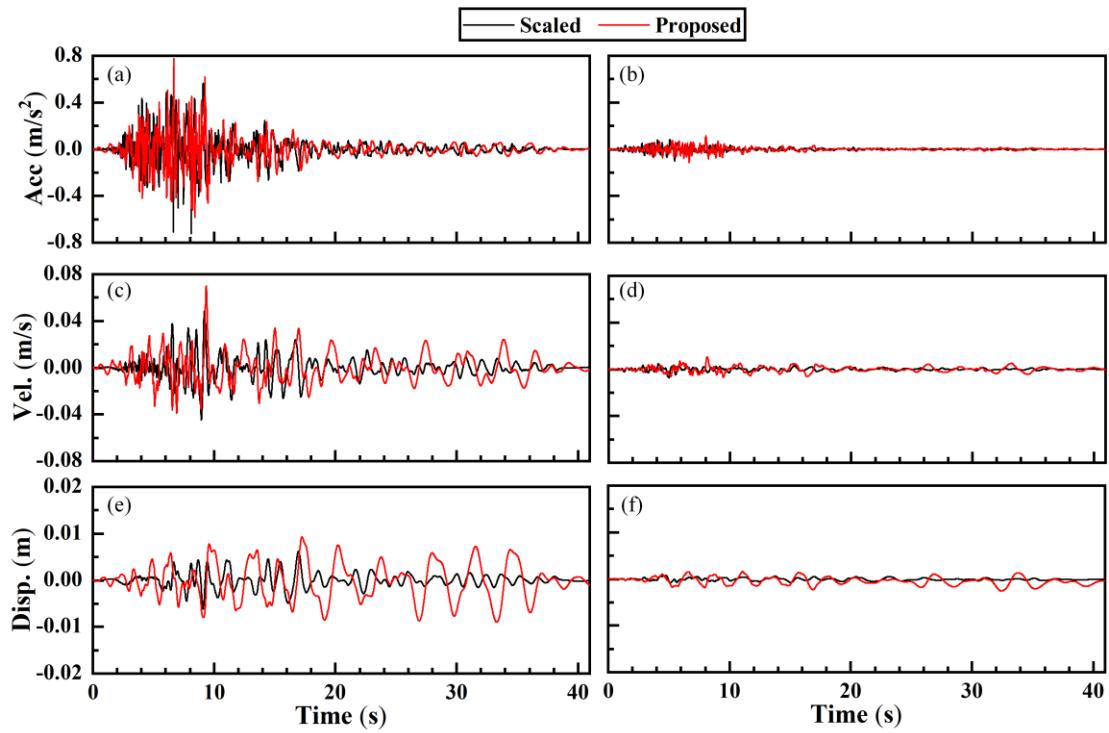
Arias intensity comparison (RSN 752)



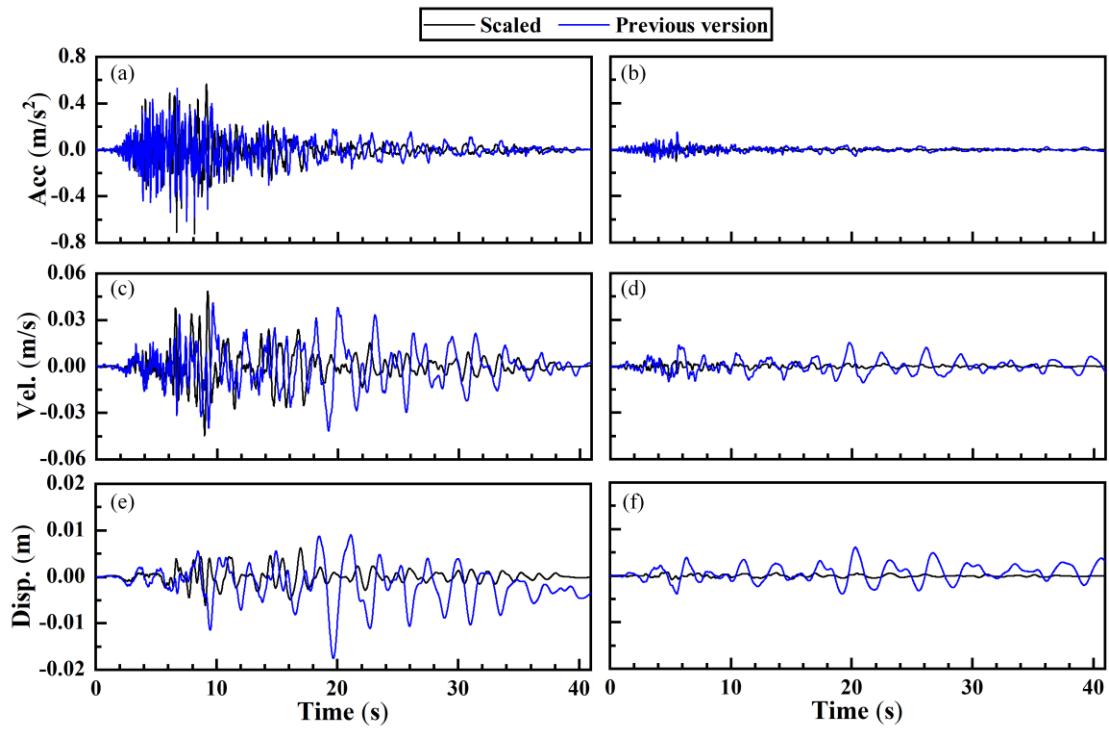
RadSAPs comparison (RSN 752)



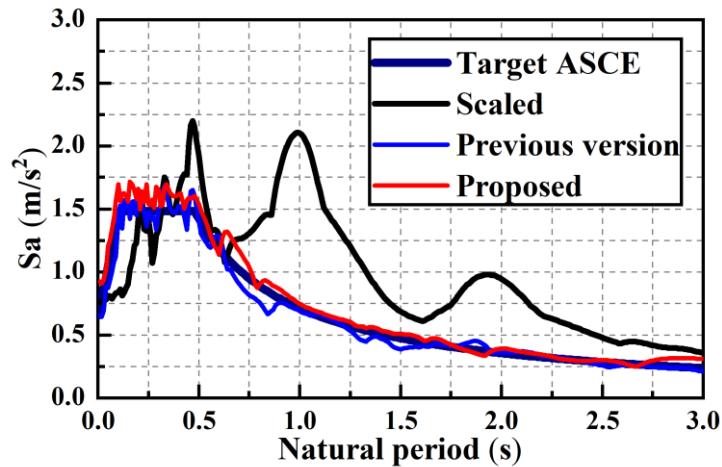
Time history comparison using proposed algorithm (RSN 752)



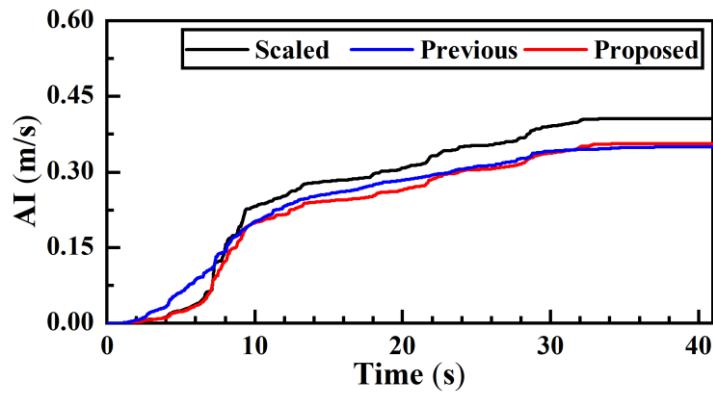
Time history comparison using previous version method (RSN 752)



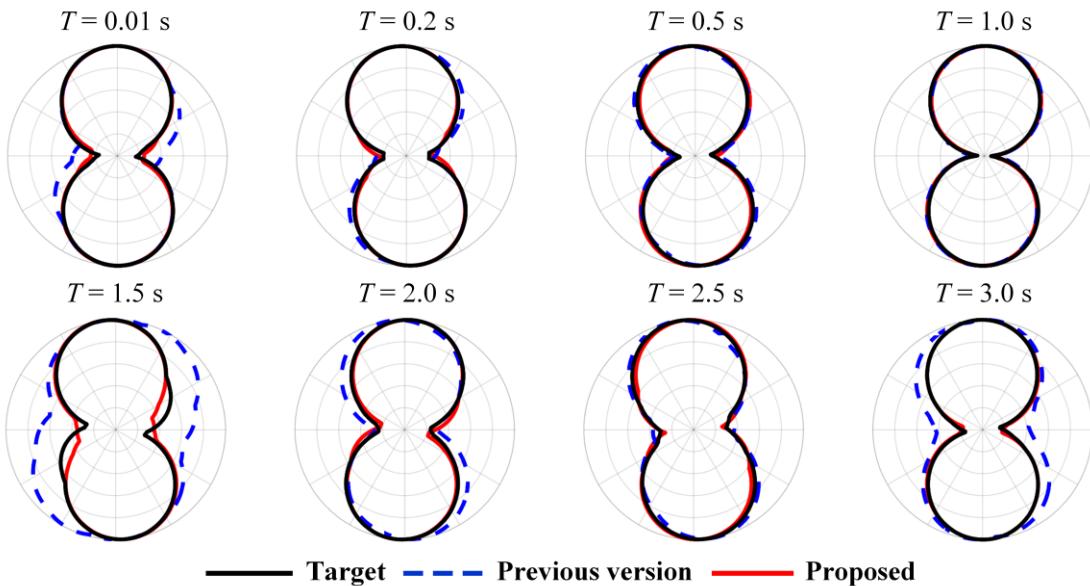
RotD100 response spectrum comparison (RSN 286)



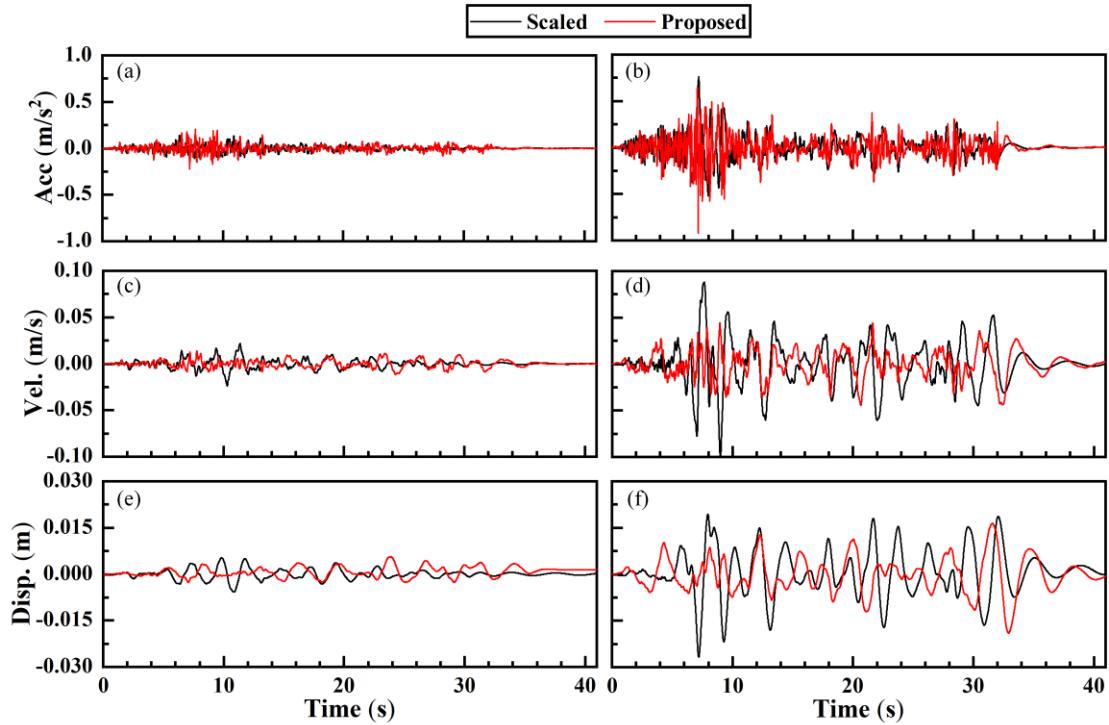
Arias intensity comparison (RSN 286)



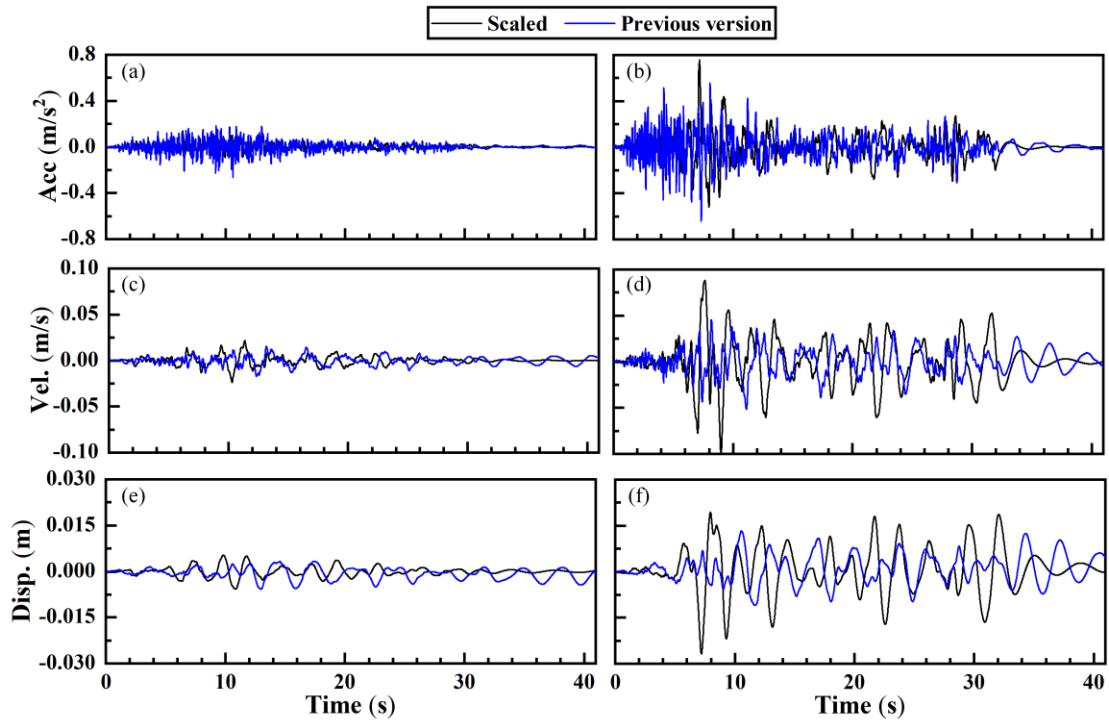
RadSAPs comparison (RSN 286)



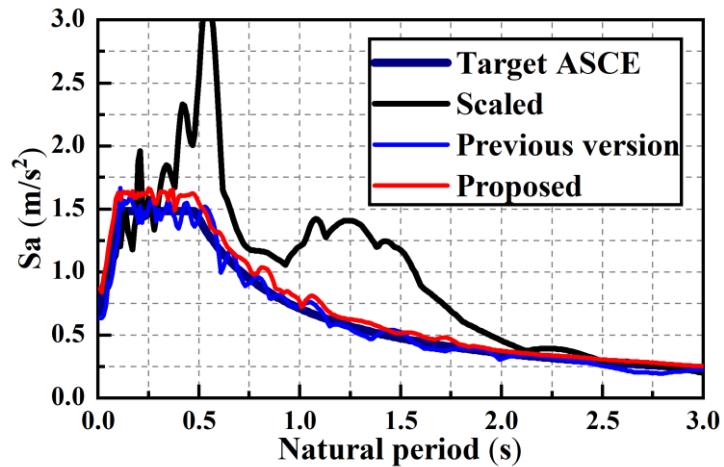
Time history comparison using proposed algorithm (RSN 286)



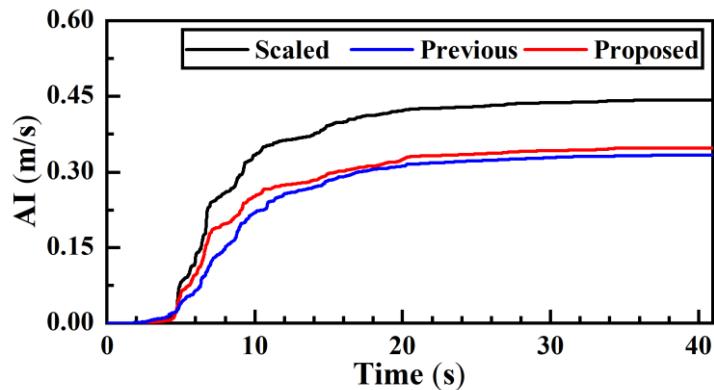
Time history comparison using previous version method (RSN 286)



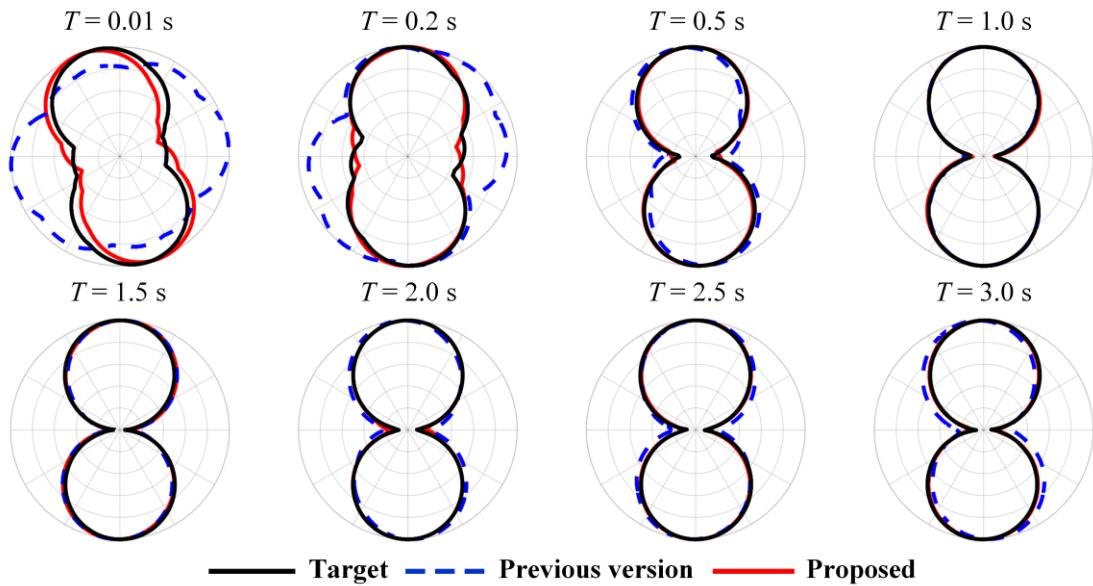
RotD100 response spectrum comparison (RSN 768)



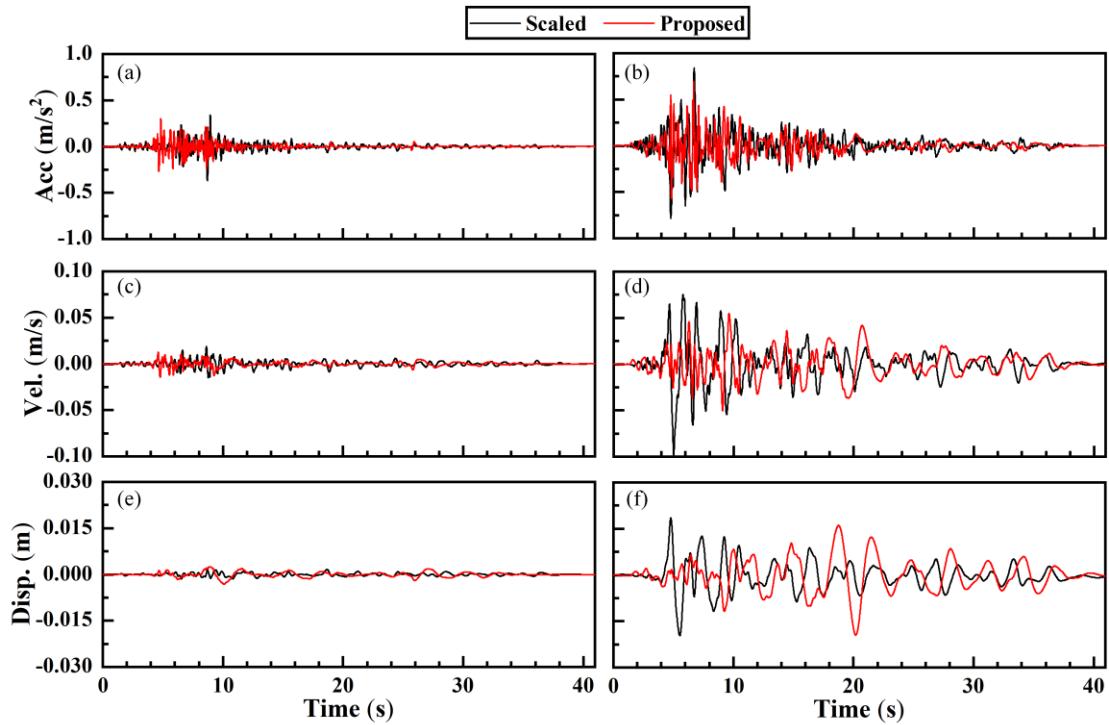
Arias intensity comparison (RSN 768)



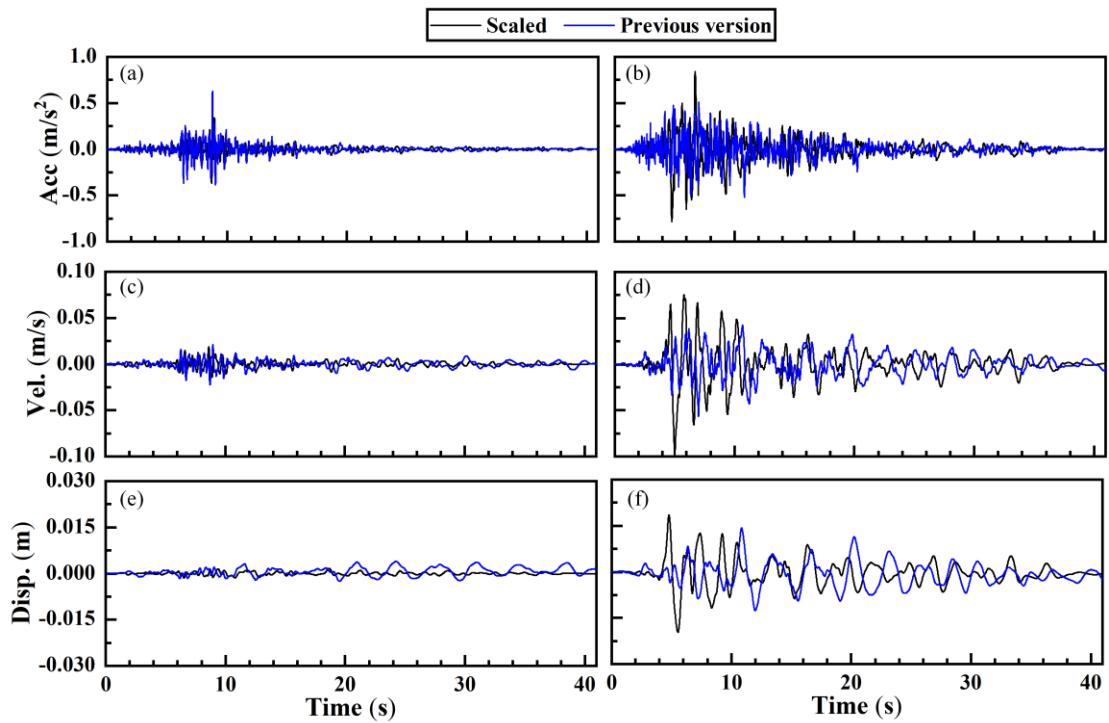
RadSAPs comparison (RSN 768)



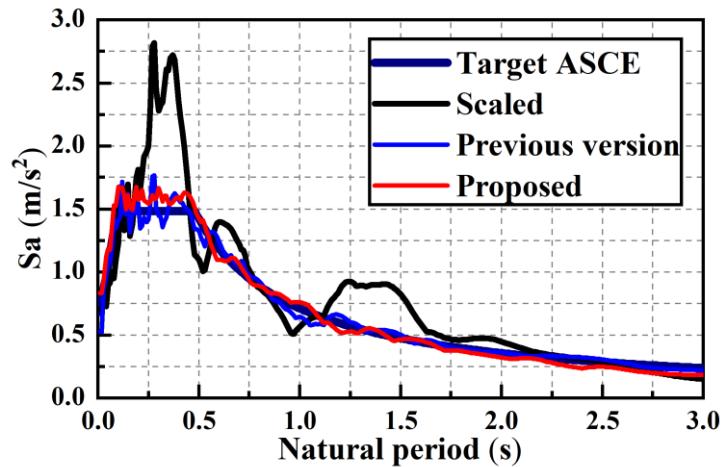
Time history comparison using proposed algorithm (RSN 768)



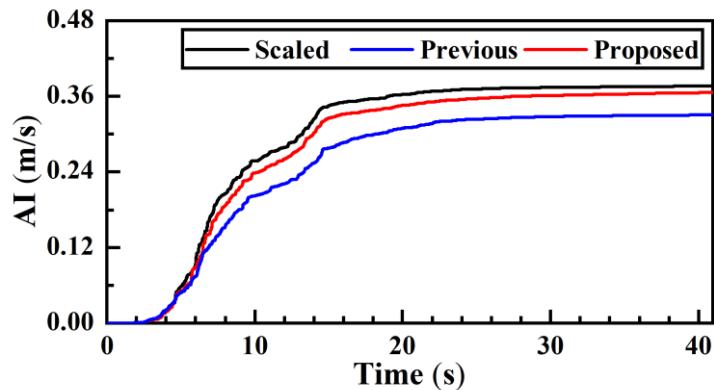
Time history comparison using previous version method (RSN 768)



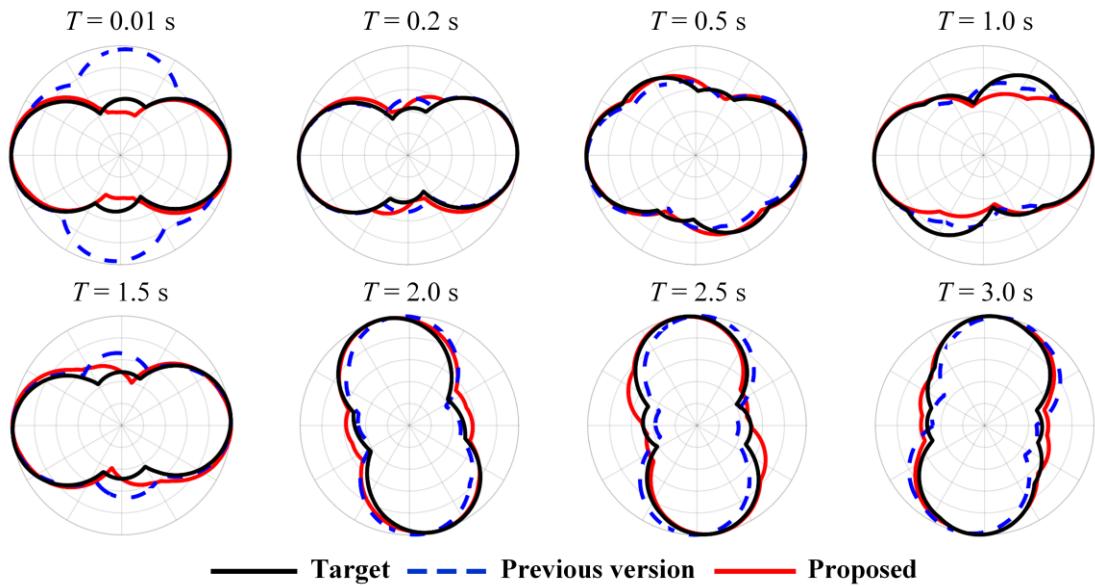
RotD100 response spectrum comparison (RSN 721)



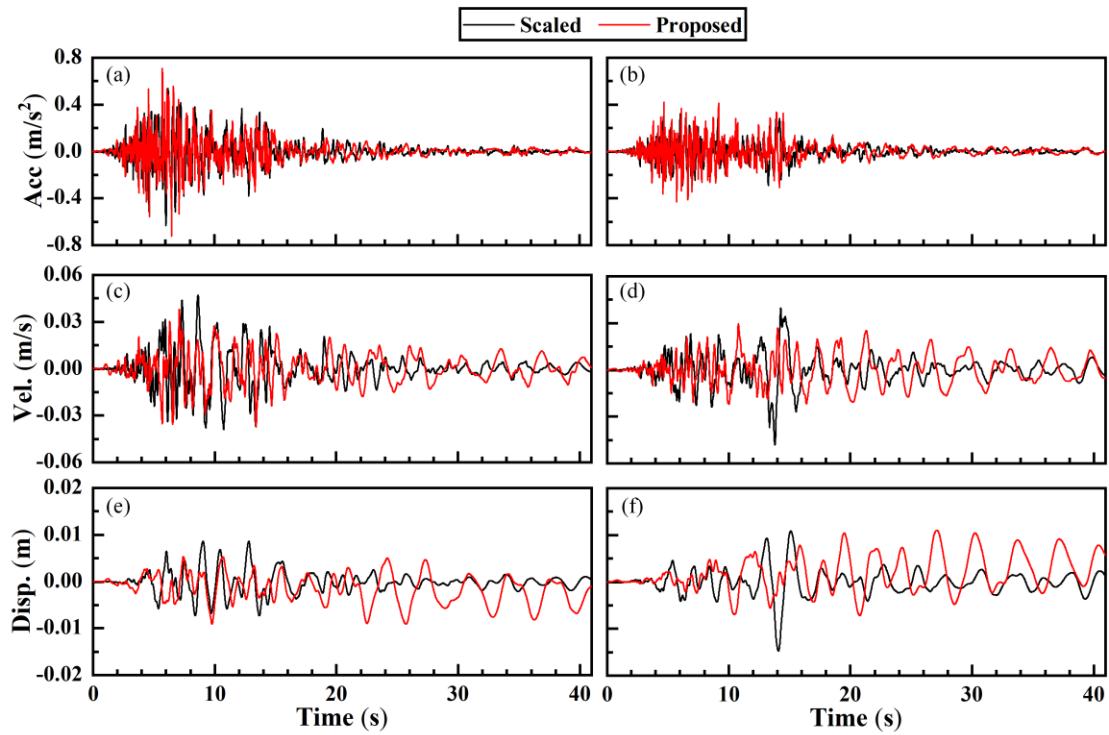
Arias intensity comparison (RSN 721)



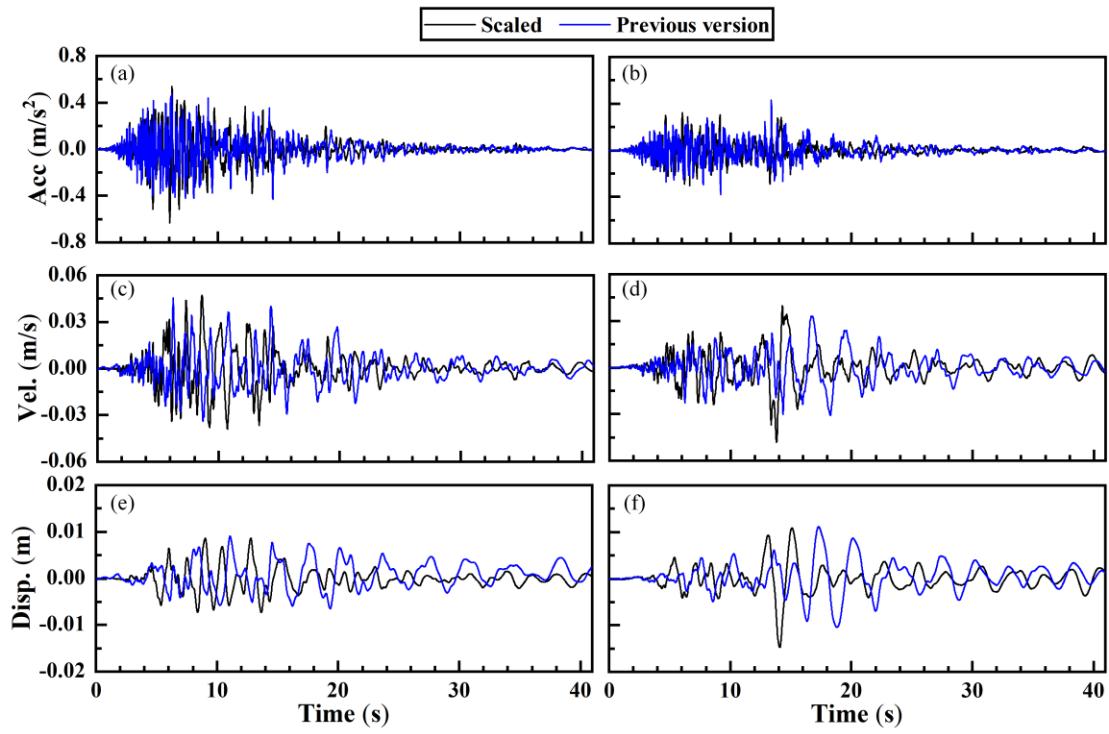
RadSAPs comparison (RSN 721)



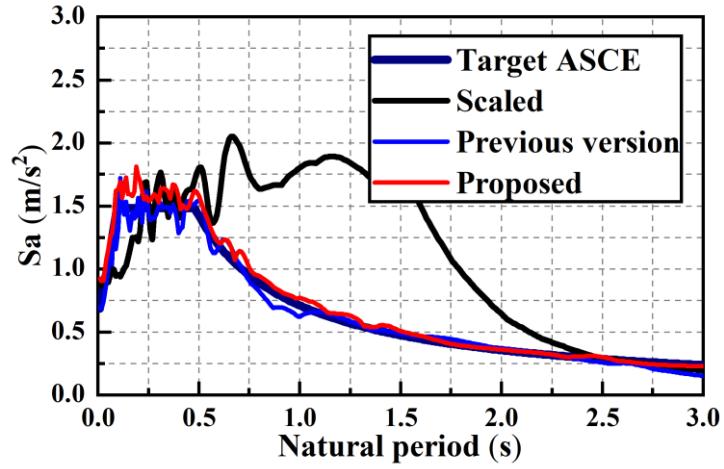
Time history comparison using proposed algorithm (RSN 721)



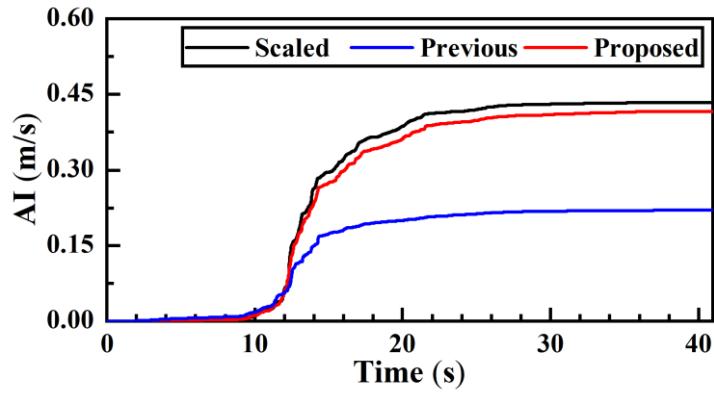
Time history comparison using previous version method (RSN 721)



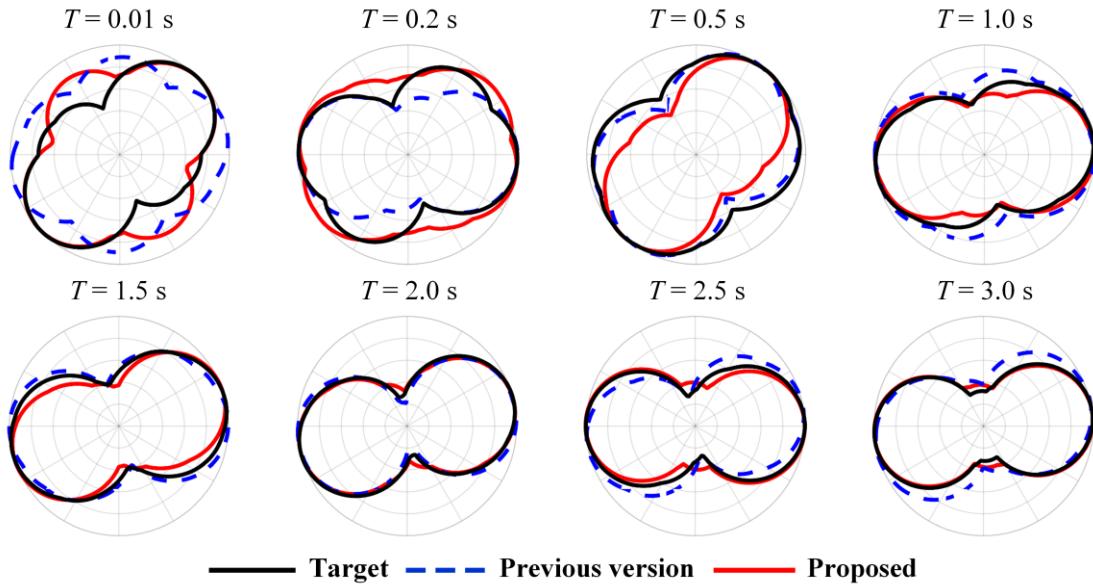
RotD100 response spectrum comparison (RSN 758)



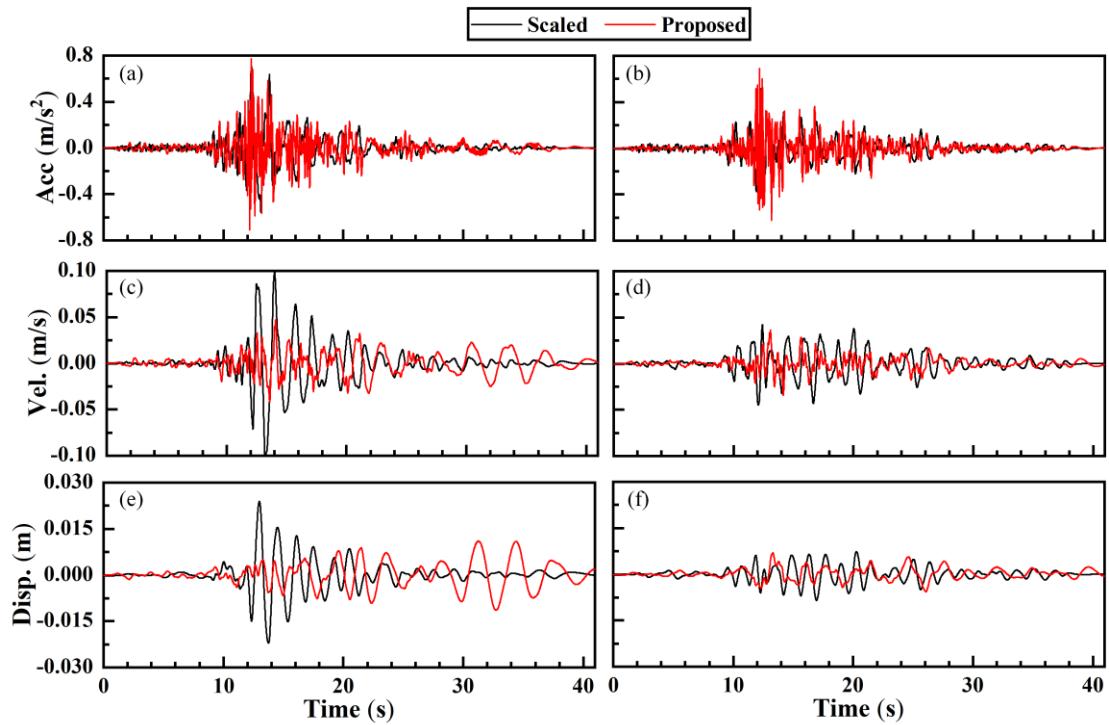
Arias intensity comparison (RSN 758)



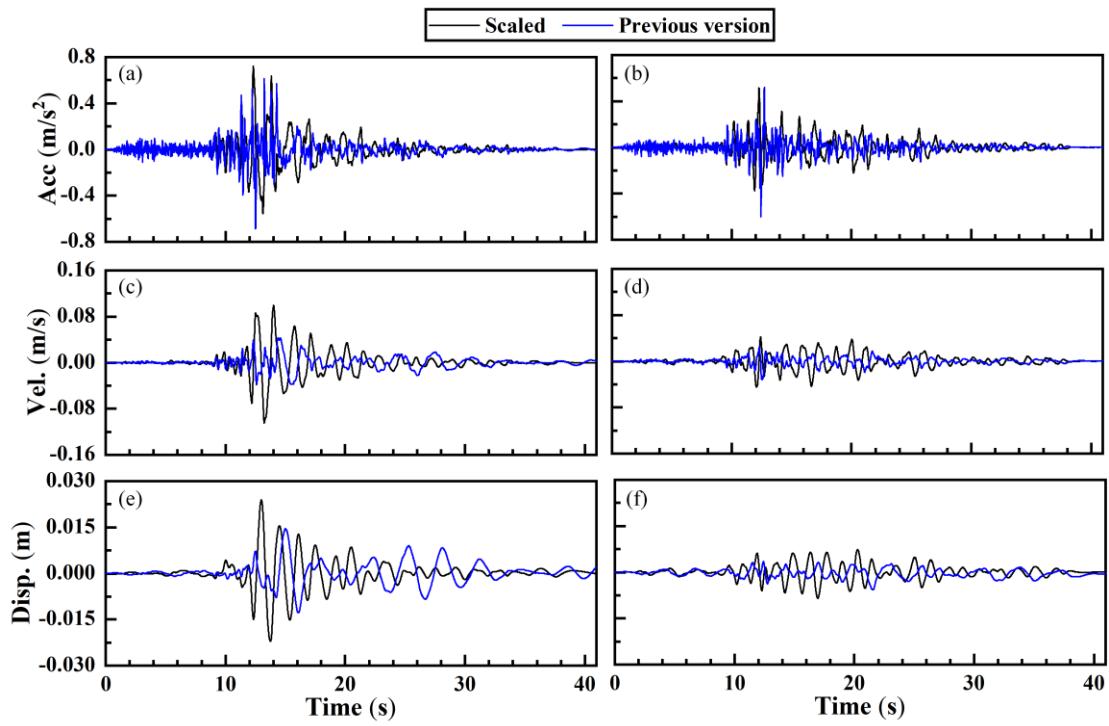
RadSAPs comparison (RSN 758)



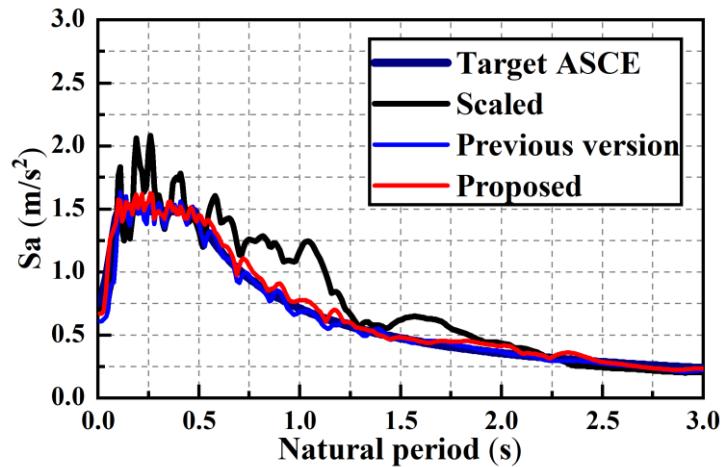
Time history comparison using proposed algorithm (RSN 758)



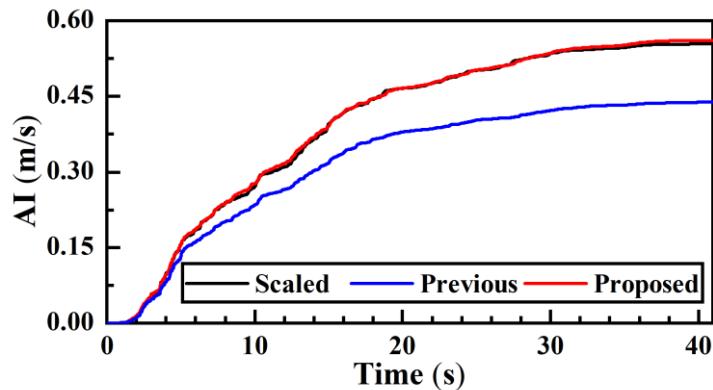
Time history comparison using previous version method (RSN 758)



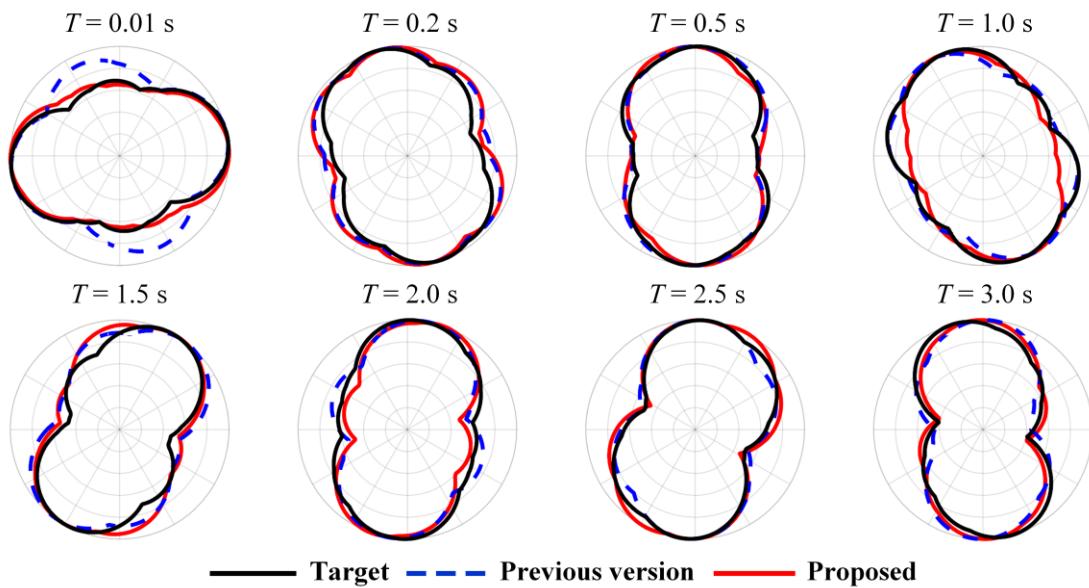
RotD100 response spectrum comparison (RSN 215)



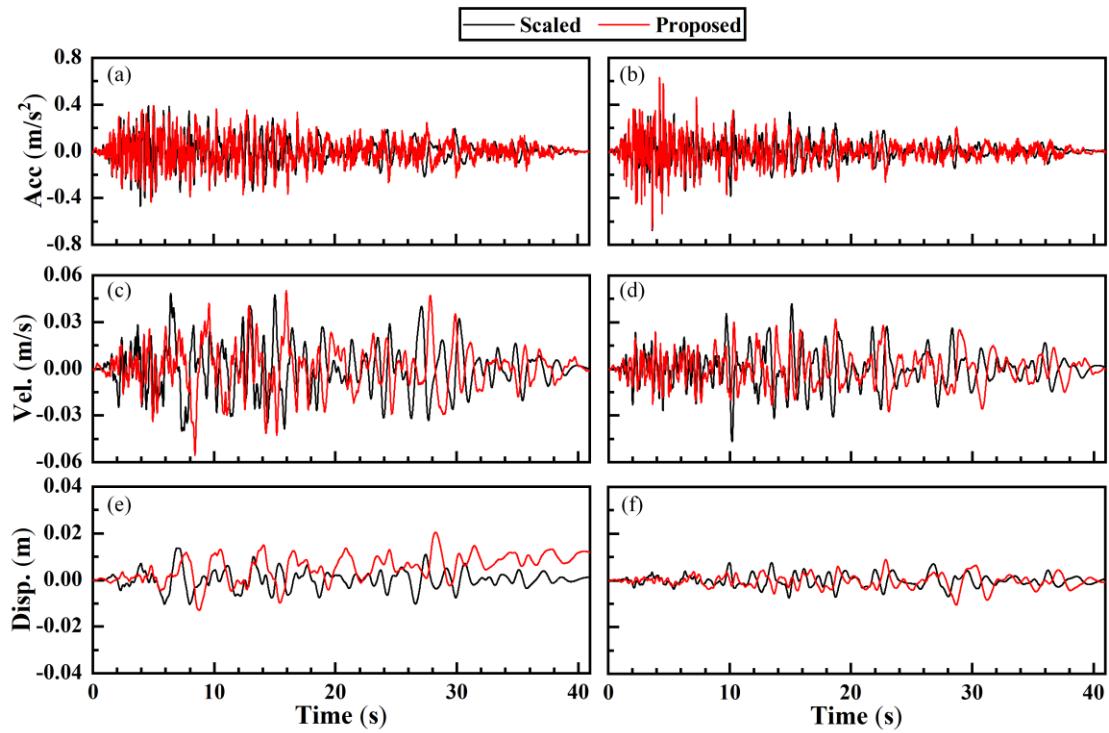
Arias intensity comparison (RSN 215)



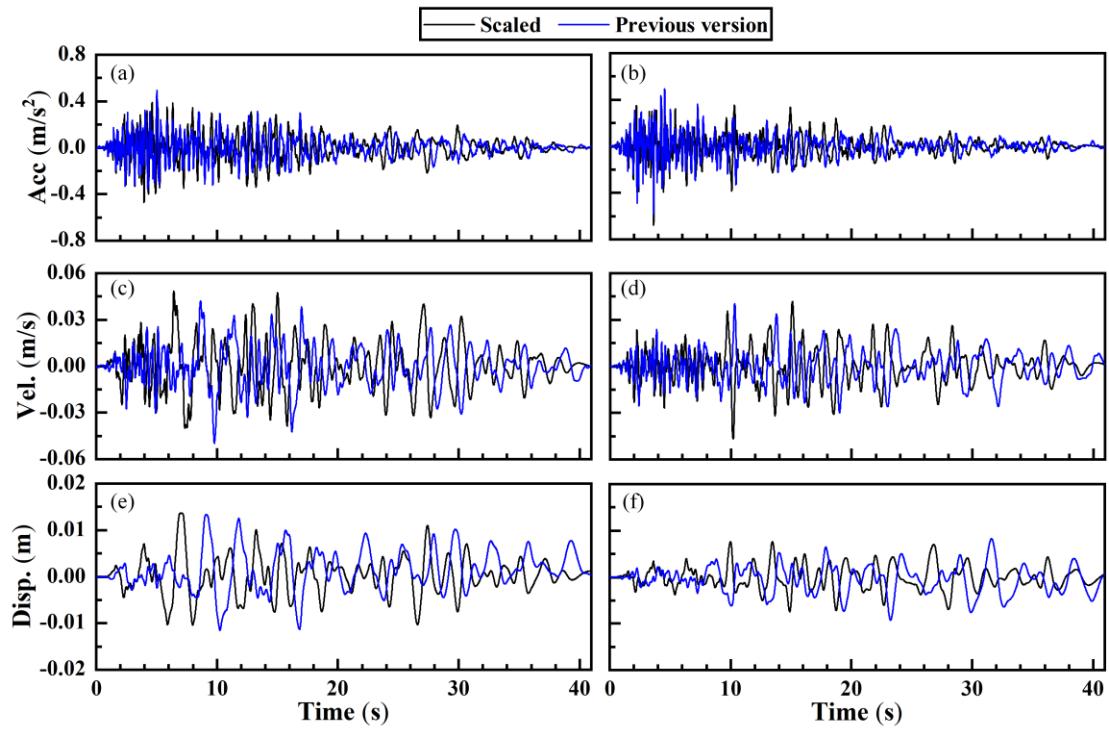
RadSAPs comparison (RSN 215)



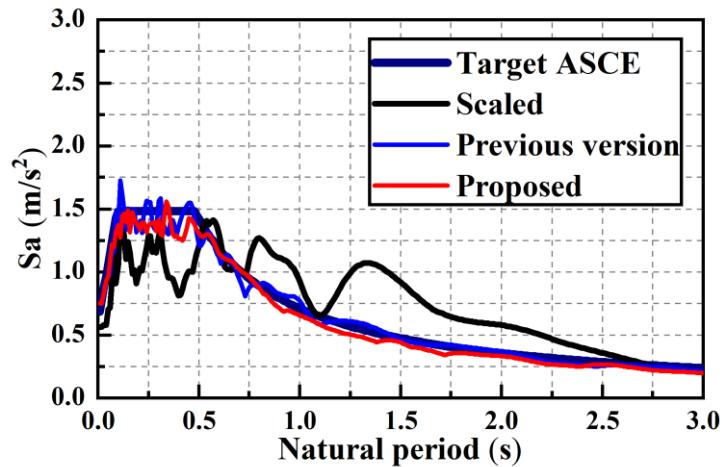
Time history comparison using proposed algorithm (RSN 215)



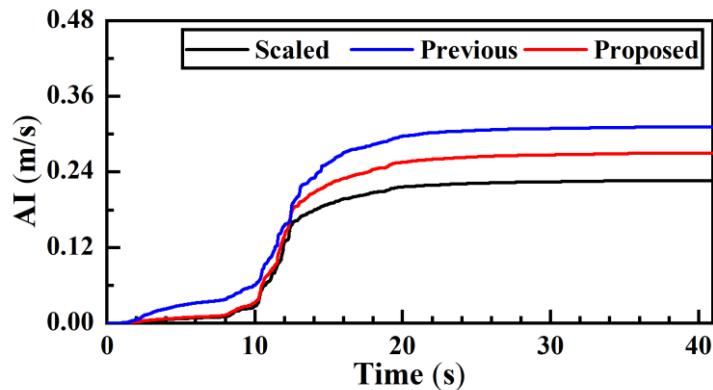
Time history comparison using previous version method (RSN 215)



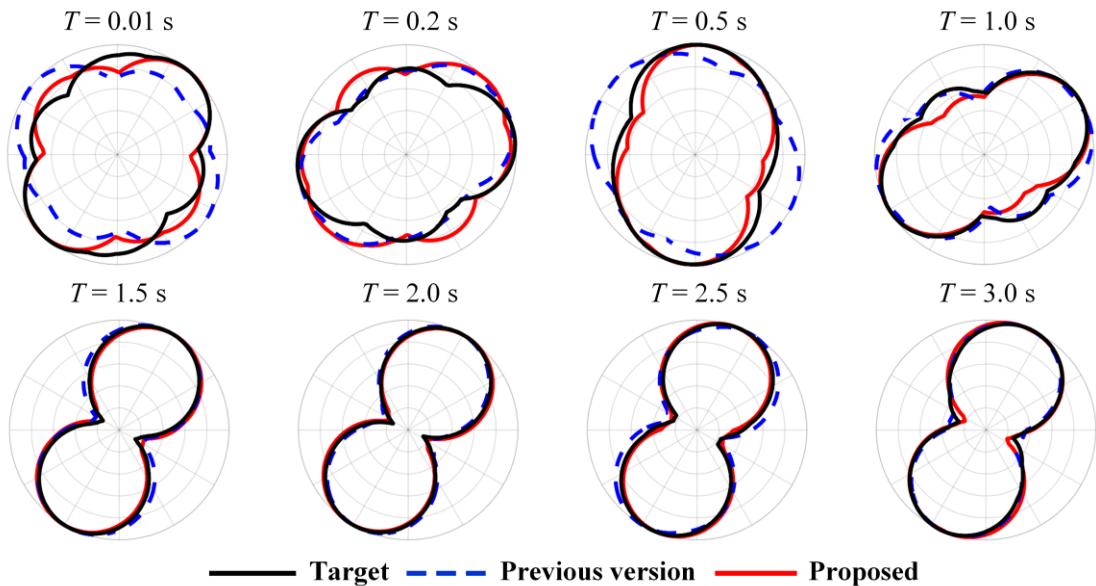
RotD100 response spectrum comparison (RSN 797)



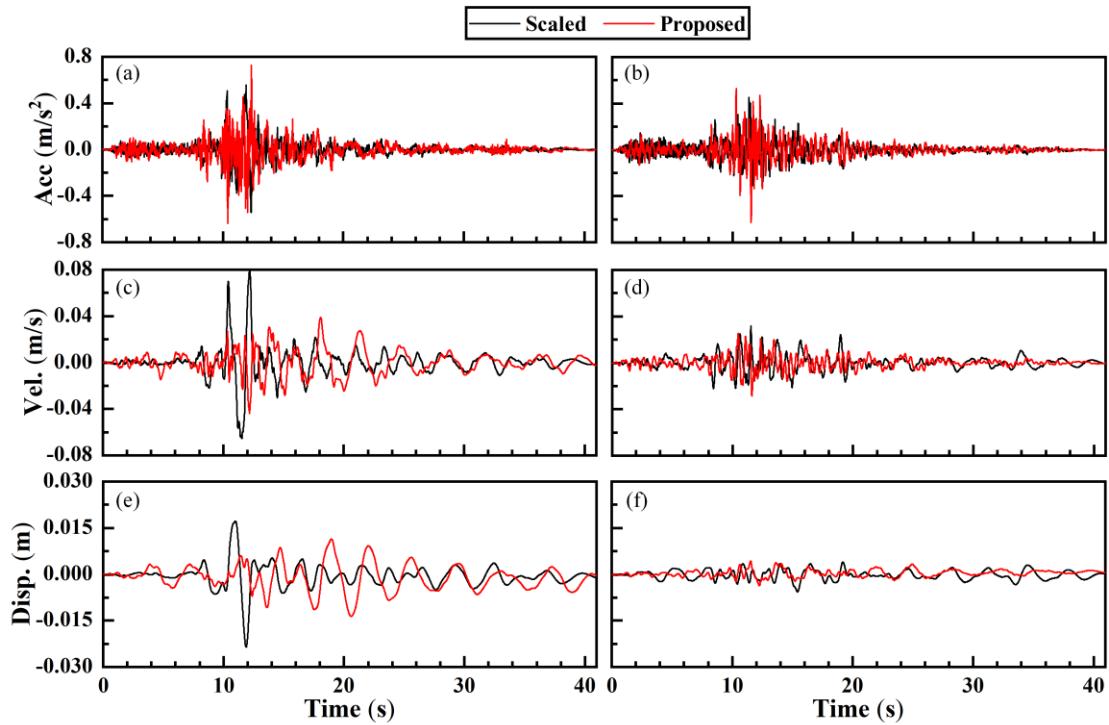
Arias intensity comparison (RSN 797)



RadSAPs comparison (RSN 797)



Time history comparison using proposed algorithm (RSN 797)



Time history comparison using previous version method (RSN 797)

