

Supershear earthquake is an interesting phenomena that is still without a robust method for its proving. In 2012 Vallée and Dunham (2012) published a method that studied far-field waveforms from supershear earthquakes. They conclude that unilateral supershear ruptures have similar shape of surface waves on the border of Mach cone as surface waves of smaller earthquake with the similar mechanism and location. In this work we use their method and we developed a script in Python with use of ObsPy library. Our script is capable of downloading and processing data from worldwide seismic databases like IRIS. We tested our program on a supershear earthquake in 2001, Kokoxili, China, which was studied in the original paper. Our results were the same as the original one. Then we use our script to other potential supershear earthquakes: Denali 2002, Yushu 2010 and Aegean sea 2014 to test the method and its results. We conclude that this method is relatively stable for large earthquakes like Kokoxili where we have a big difference between the main shock and the small one. For smaller events there could be a problem with seismic noise and proper setting of frequention.