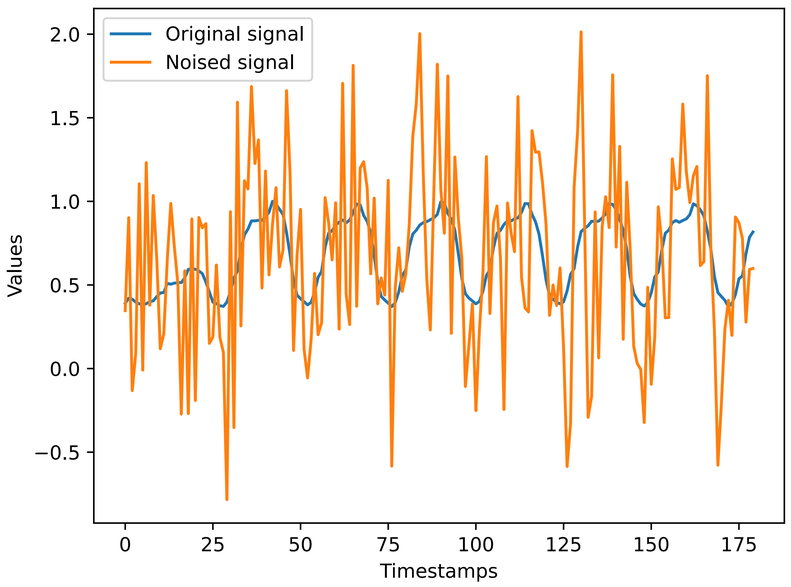
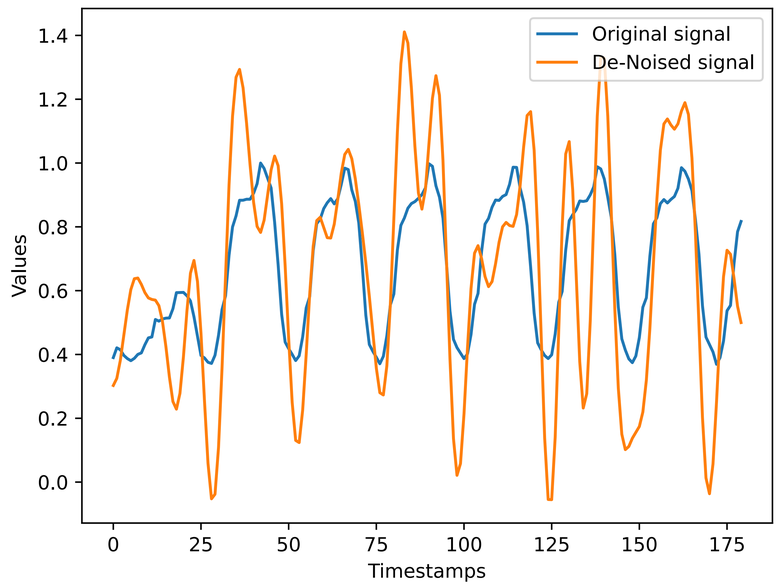
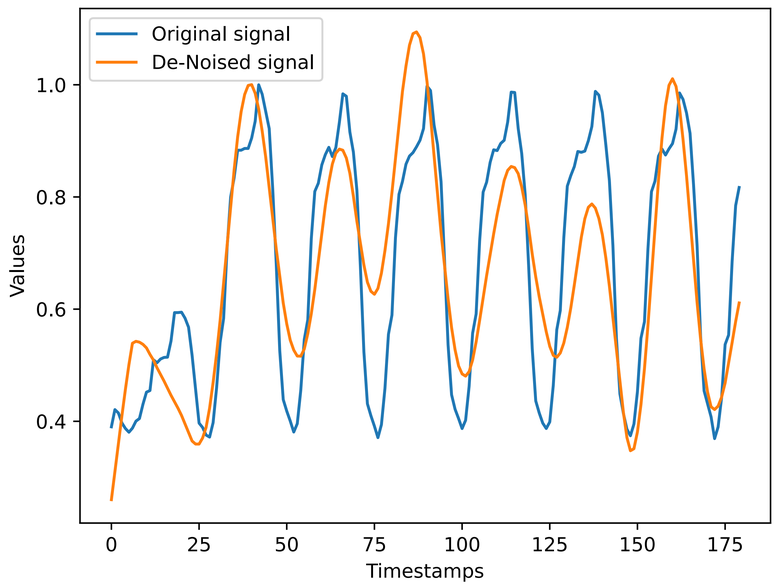


(1) The comparison between the original signal and the noised signal.

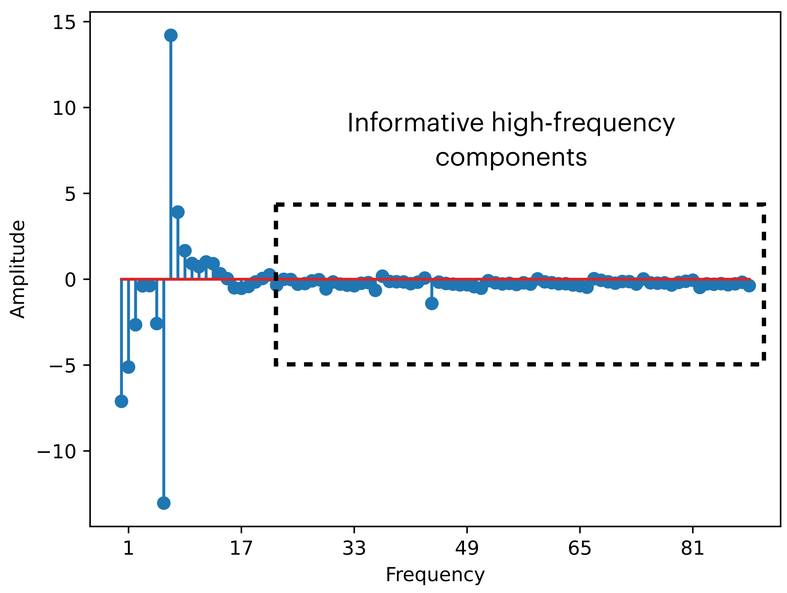


(2) The comparison between the original signal and the de-noised signal by individual low-passing filtering.



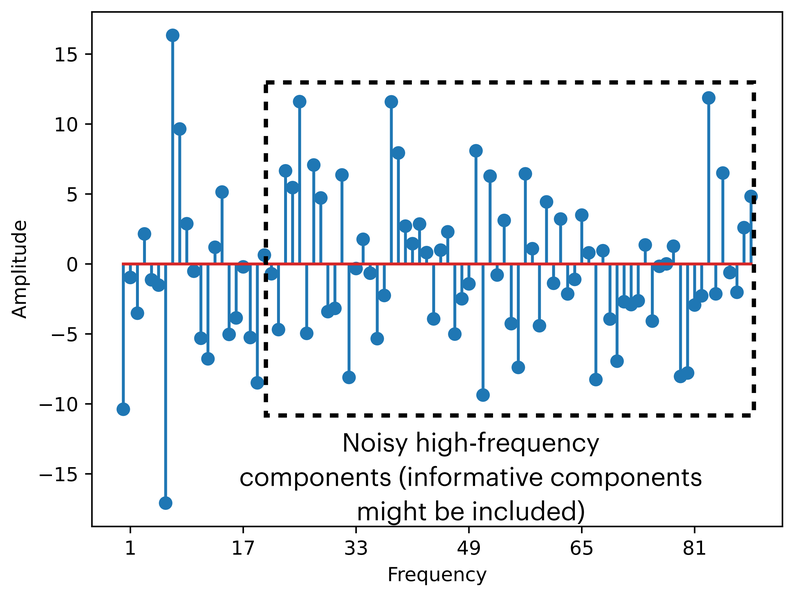
(3) The comparison between the original signal and the de-noised signal by our proposed decomposition before low-passing filtering.

MAE=0.397
Pearson Corr=0.497



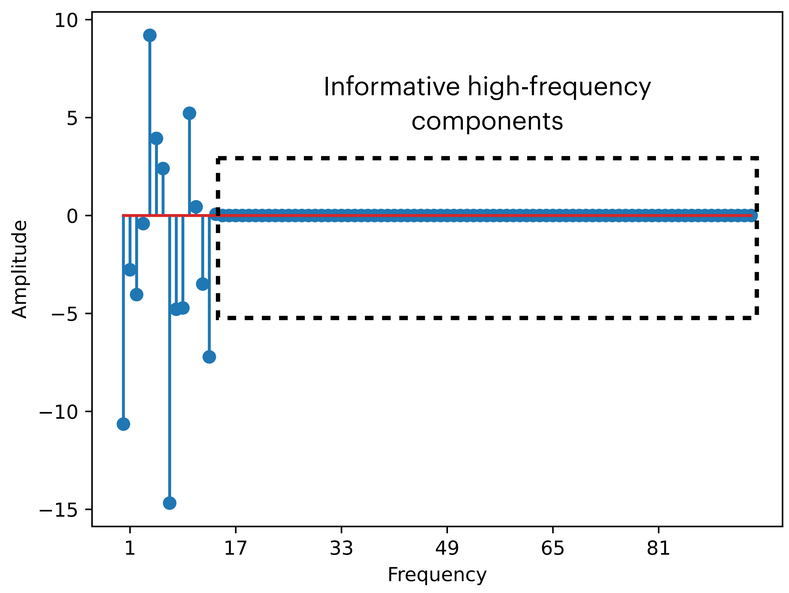
(4) The frequency spectrum of the original signal (corresponds to the blue line of Fig. 1)

MAE=0.200
Pearson Corr=0.744

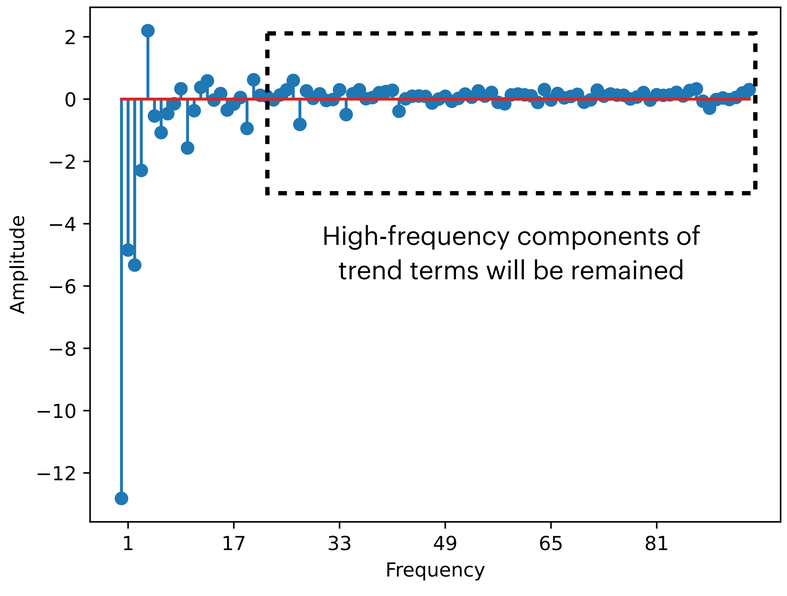


(5) The frequency spectrum of the noised signal (corresponds to the orange line of Fig. 1)

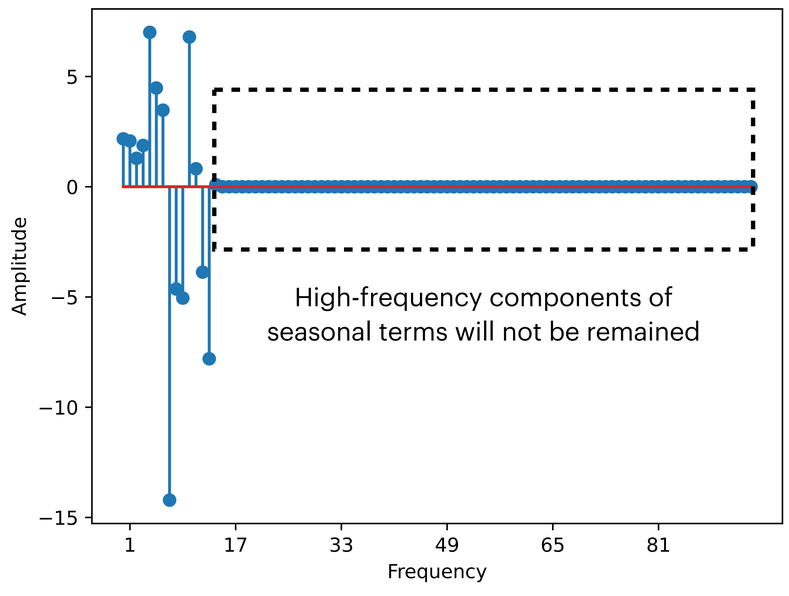
MAE=0.105
Pearson Corr=0.820



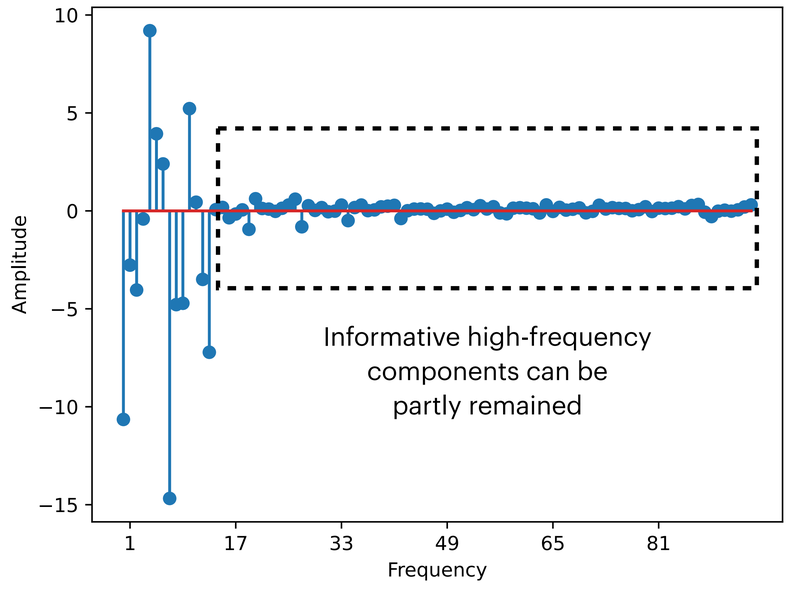
(6) The frequency spectrum of the de-noised signal by individual low-passing filtering. (corresponds to the orange line of Fig. 2)



(7) The frequency spectrum of the trend term after decomposition



(8) The frequency spectrum of the seasonal term after decomposition



(9) The frequency spectrum of the de-noised by our method. (corresponds to the orange line of Fig. 3)