

Biomedical Signal Processing

10/17 Homework 1

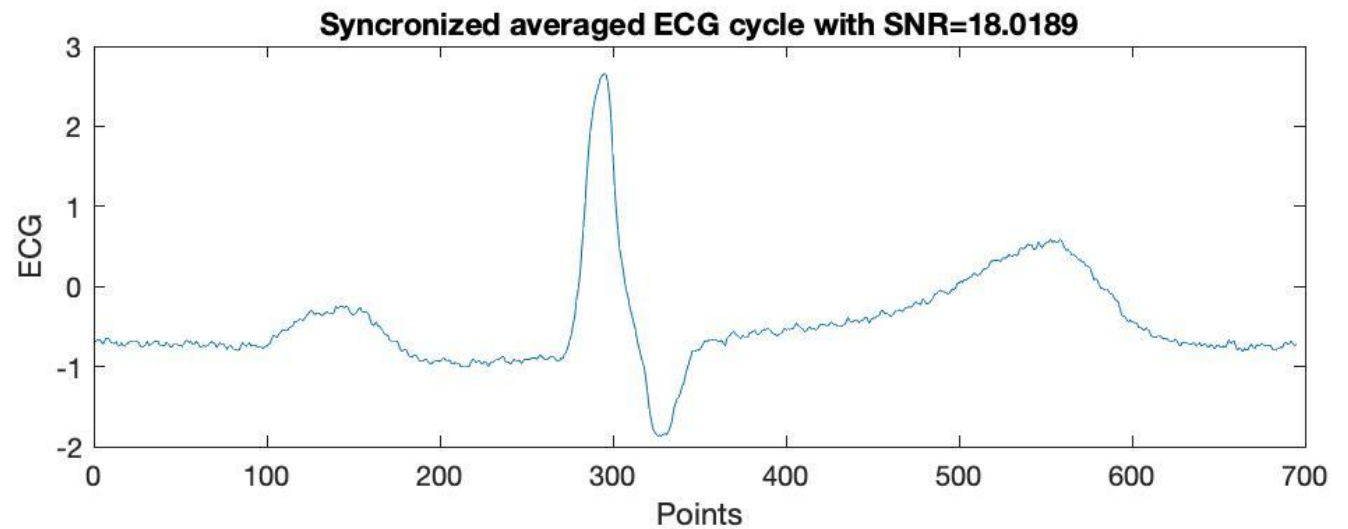
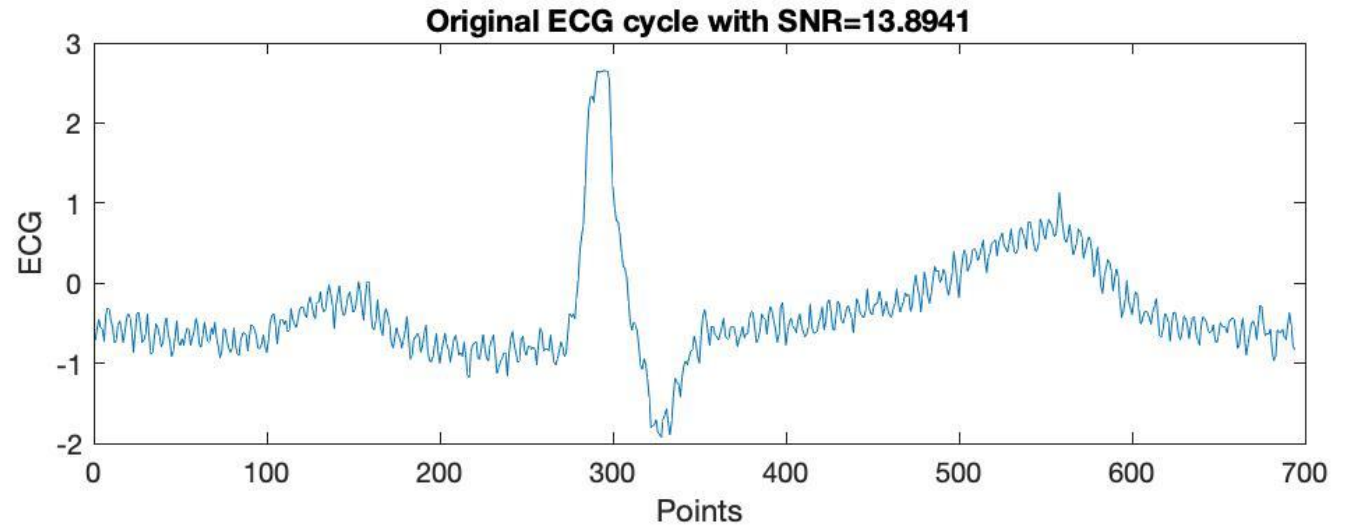
醫工系109 Chia-Hung Cho F94051089



➤ Problem1

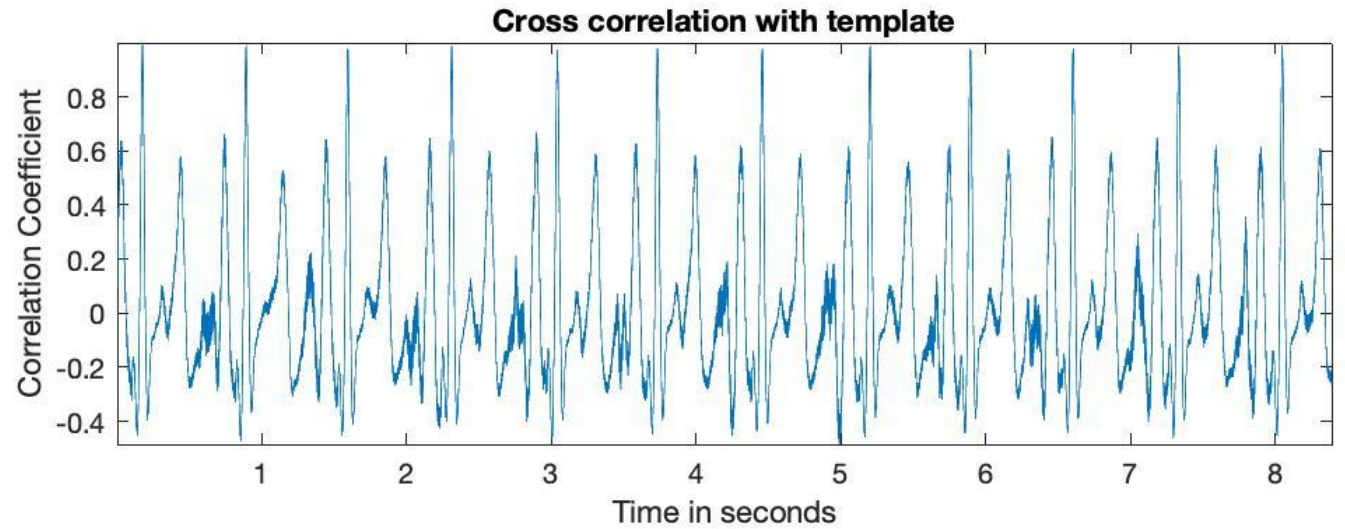
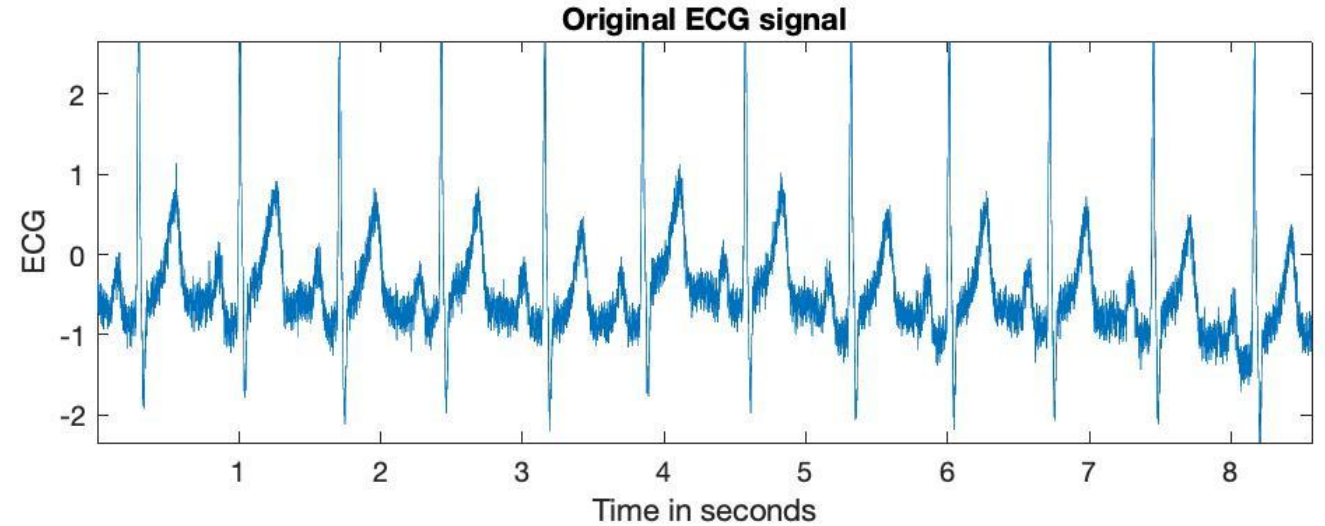
Synchronized averaging

- SNR increased by 4.1248



➤ Problem1

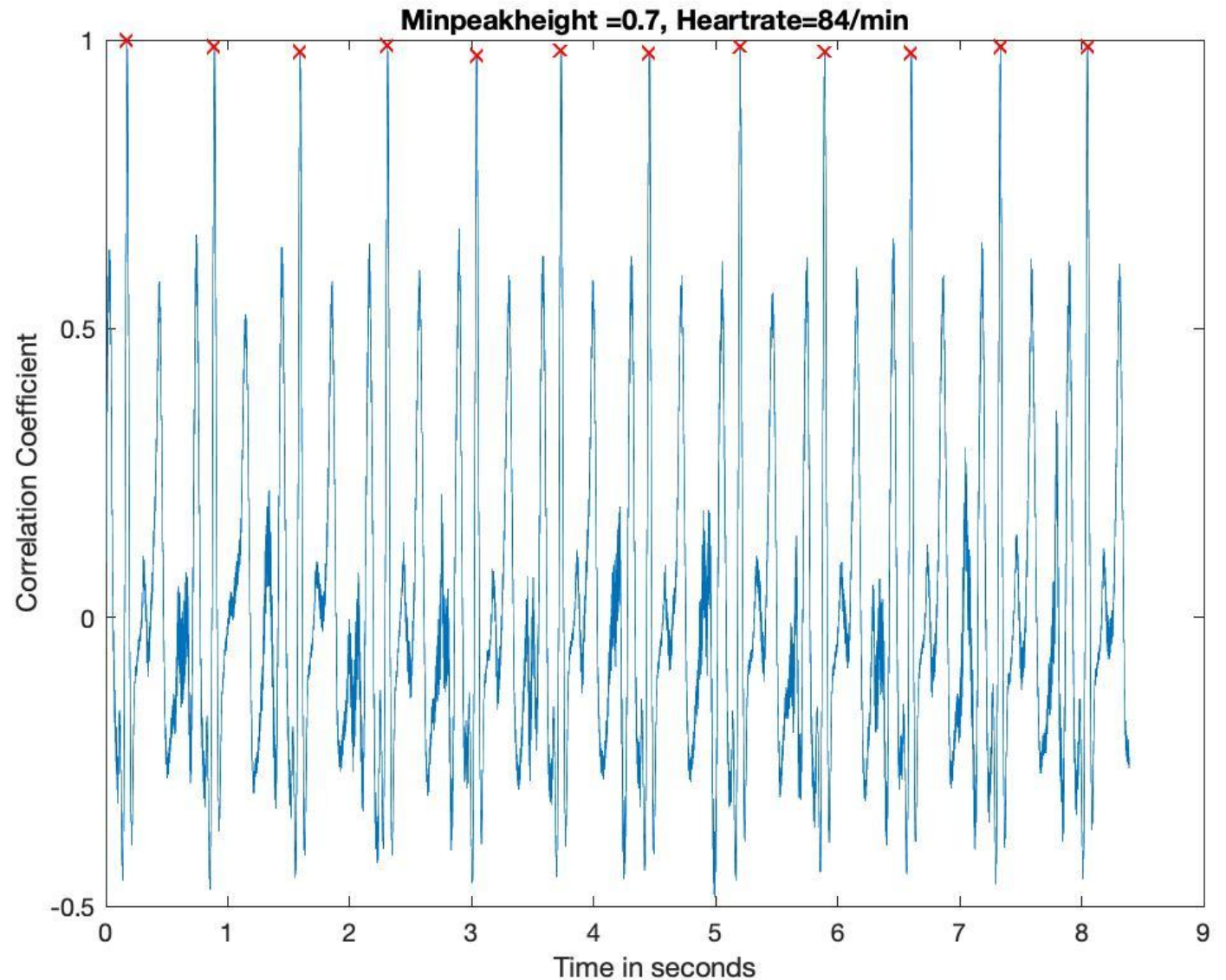
Template cross correlation



➤ Problem1

Beat Detection with different threshold

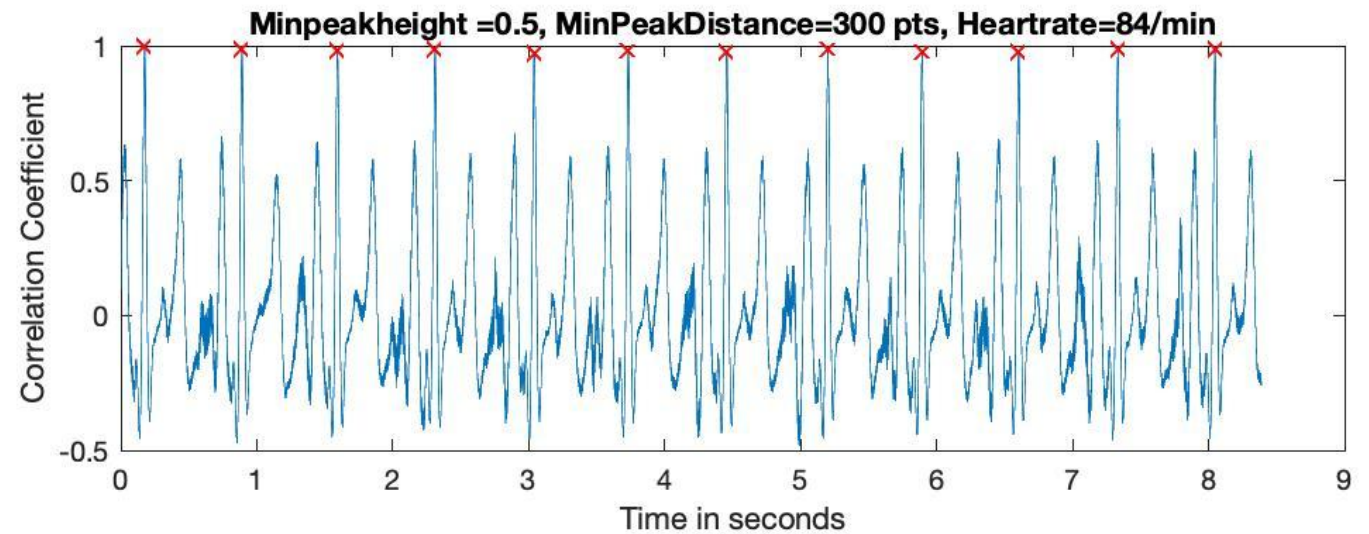
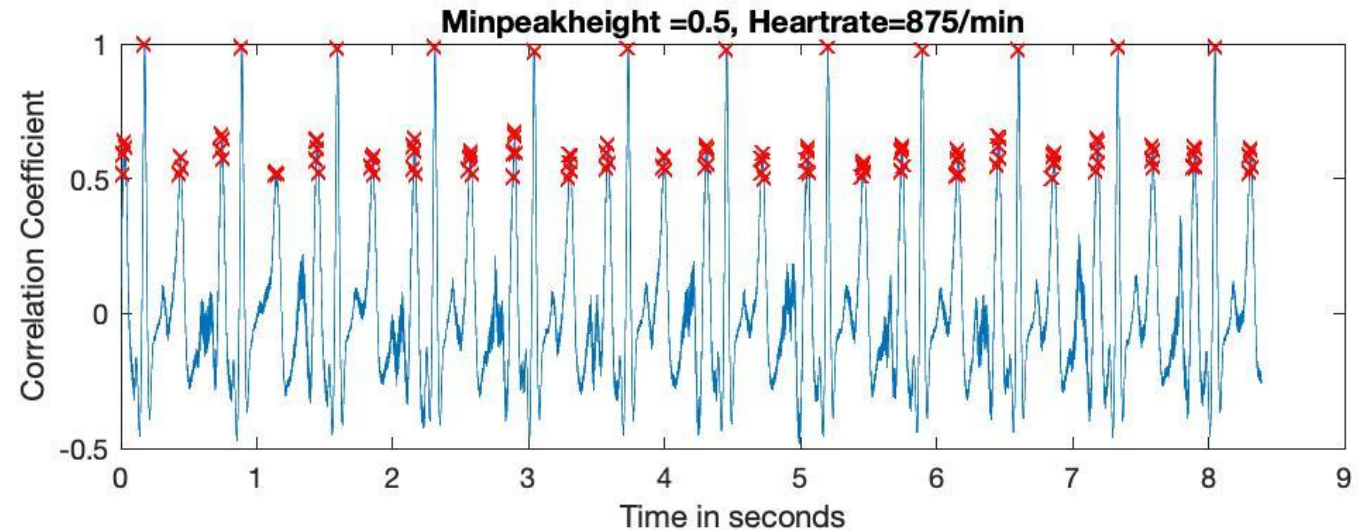
- Threshold = 0.7
- Beats = 84/min



Problem1

Beat Detection with different threshold

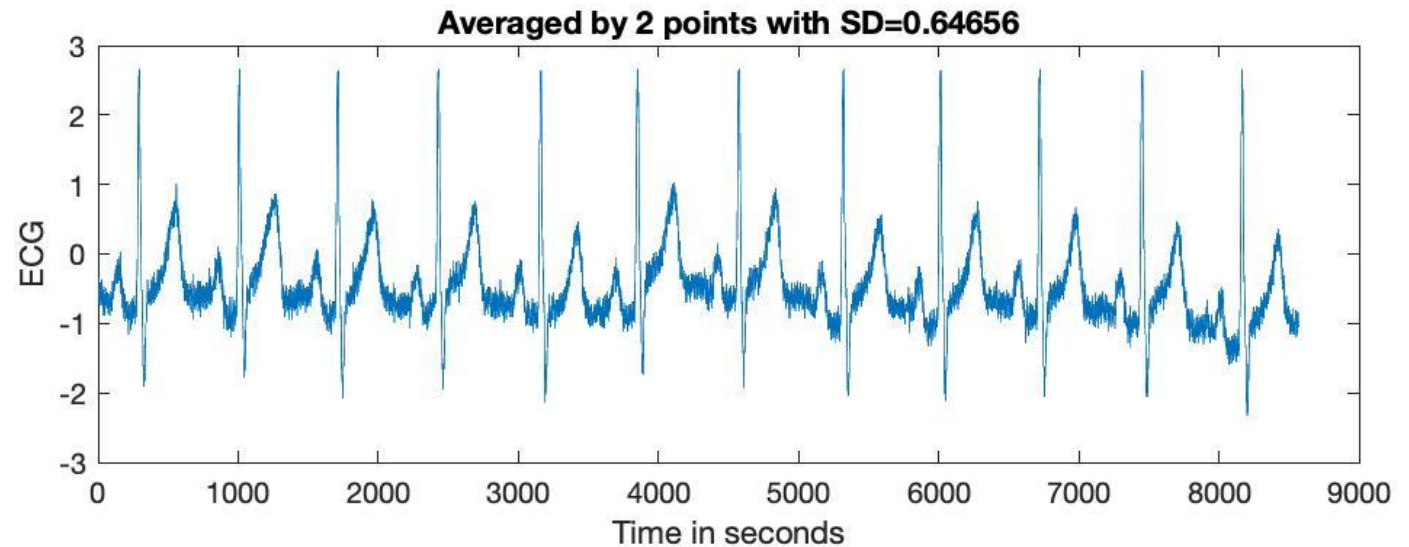
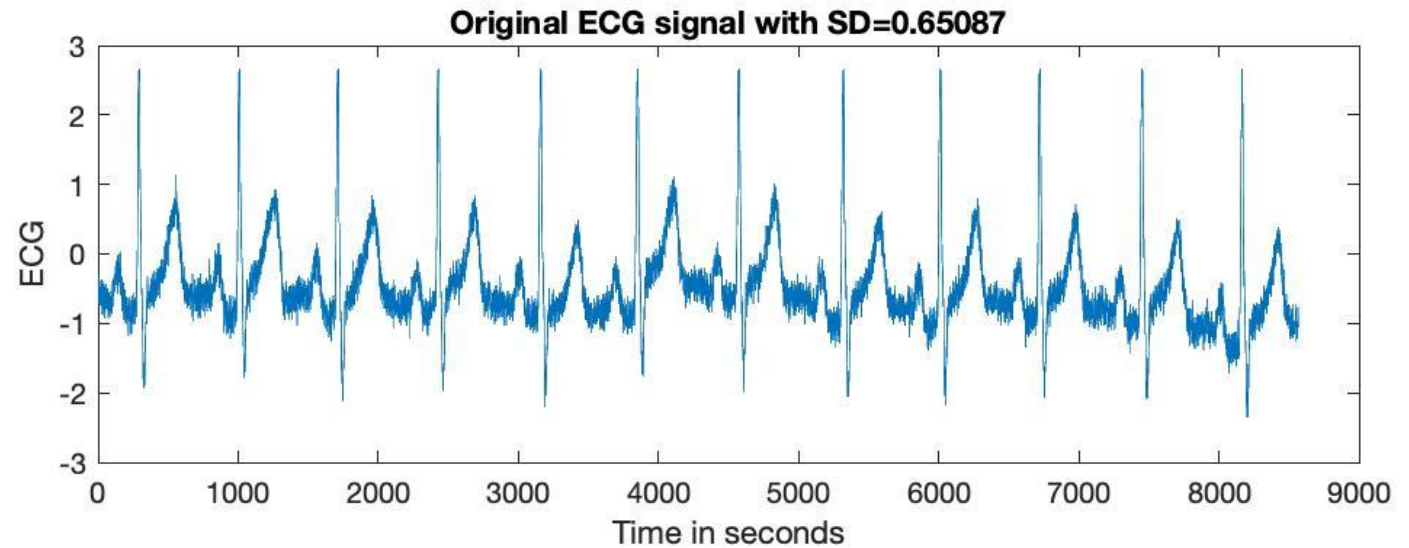
- Threshold = 0.5
- Corrected by minpeakdistance=300pts
- Beats=84/min



➤ Problem2

Moving averaging by 2 points

- SD decreased by 0.00431



➤ Problem2

Moving averaging by 4 points

- Smoother than 2 points
- SD decreased by 0.01252

