

Preprocessing

- Using Bandpass filtering to remove noise and keep heart rate content
- Use IIR or FIR filters



Motion Artifact Removal

- Additional Filtering withing a specific frequency band
- Signal Quality Assesment (SQA)



Peak Detection

- Find the correct systolic peak or pulse onset



IBI Extraction

- Identify metrics like SDNN, RMSSD, SDRR
- Essentially find the time difference between peaks



Outlier Rejection

- Remove physiologically implausible intervals



HRV Feature Extraction

- Identifying time, frequency and non-linear metrics