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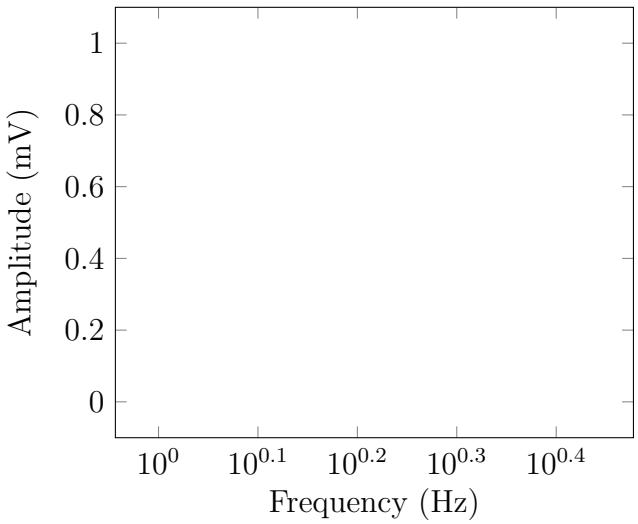

Figure 1: Amplitude based on frequency.

- Band-pass filter, consisting of a high-pass and a low-pass filter.
  - High-pass blocks DC offsets
  - Low-pass high-frequency components not a part of the ECG signal
- 50 Hz notch filter (Filter out mains-noise)
- Electrosurgery/Surgical diathermy filter

EDIT THIS "Usually, the frequency spectrum of normal ECG signal range from 0.01 Hz to 100 Hz and 90% spectral energy of the signal focus on 0.25 Hz to 35 Hz. The noise of ECG signal frequency is mainly distributed in the two bands. One is the baseline drift which is generated by breathing and muscle motion and mainly in $0.05 \sim 2$ Hz." (Li et al., 2017)

3 Procedure

4 Raw Data

5 Analysis

6 Conclusion

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References

Jianqiang Li, Genqiang Deng, Wei Wei, Huihui Wang, and Zhong Ming. Design of a real-time ECG filter for portable mobile medical systems. *IEEE Access*, 5:696–704, 2017. ISSN 2169-3536.