

The section is very well written with good sentence and paragraph structure. The only edits I suggested were regarding the structure of some of the sentences which can also be kept as they are. So the edits are mostly just suggestions which might improve the report.

1. The first line, "Previous findings of increased power in the β -frequency band refer to the power of the spectral density in this band." seems a little out of place at the beginning of the section I feel. Does previous findings mean previous findings in the previous sections or research done before? Also it might be easier if spectral density was in the topic position and then you could give the reason about why we are discussing it? You could actually also delete it and may be mention it before when you discuss about the findings themselves.
2. In the second sentence is f the signal? I feel it might be better if you can say "The power spectrum $p(f)$ of a signal f , measures ..." Then its kind of clear what f exactly means.
3. For equation (2), you wrote above that its twice the magnitude of the Fourier Transform but in the equation you squared it.
4. First sentence in sub section periodogram, "The periodogram is a technique to estimate the power spectrum." You could try putting power spectrum in the topic position instead as that is what you are trying to estimate. So something like, "The power spectrum can be estimated using a technique called periodogram."
5. In the next sentence, you mention "Fourier transform," but previously you have always used "Fourier Transform". It might be a good idea to stick to one throughout the report.
6. Before equation 5, instead of "Following the definition in 2, " you can write "Similar to the definition of power spectrum in 2," or "Following the definition of power spectrum in 2,". Whichever works for you.
7. Right after equation 6, in " $W(s)$ is the spectrum of the window function, here a rectangular window." By spectrum do you mean the power spectrum? Instead of here a rectangular window. You could have a new sentence, "Here we consider a rectangular window function."
8. Before mentioning Expected value and variance of periodogram it might be a good idea to say why we might be interested in looking at it and also the asymptotic distribution. Just a line or two.
9. Page 8 line 8, "The reason is that increasing the size of the sample estimates at more points, rather than improving the estimate at a fixed point." You might be missing a "we are increasing".
10. Under asymptotic distribution heading, "Under the assumption of a stationary

Gaussian process, the periodogram has the following asymptotic distribution as $N \rightarrow \infty$ [9].” You could mention the distribution. That is, something like “Under ..., the periodogram is distributed as a chi-squared distribution with two degrees of freedom as $N \rightarrow \infty$ [9].”

11. Below equation 8, you mention “Welch’s” method thrice. Is “Bartlett’s Method” and “Welch’s Method” the same thing?
12. Going with the previous order for periodograms, I think you could have the “Confidence Intervals for Bartlett’s Method” first and then the “Correcting for Anomalous Noise Sources”
13. Equation 11, the brackets are too small.