Homework for Lecture 21.01.2020

Working group session 2

1. Concise
   - What is the topic of the paper? – Analyzing patterns in human speech in 6 European languages, with 4h of material per language in different situations and 16000 hertz, 2 bit sampling
   - How many key messages does the paper have? – Two
   - What are they? – The energy distribution follows a power law and is very similar between languages; The interevent timings between languages (their histograms) also mostly follow a power law and converge for short timings
   - Are they relevant? – the seem to be relevant for speech synthesis and understanding what speech and how it works, maybe shared human characteristics; there does not seem to be chaos at the root of human speech
2. Highlight and contextualize
   - Summary of key results in title and abstract? – Yes, even though I would question the "universality" part of the title
   - Contextualize results in introduction? – Yes, maybe a bit too much, they mention everything from earthquakes to stochastic noise and fractals
   - Introduction motivates importance? – yes, many disciplines and unanswered questions
   - Reference to previous works? – Yes, a ton of them
3. Coherent structure
   - Clarity of exposition? – Could be better, it is all very brief and assumes a lot of prior knowledge, might be due to constraints for length for publishing
   - Reinforcement of key message? – yes, but they introduce multiple new things in the Discussion to do so
   - Intro – Statement – Calculations, Simulations, Experiments – Discussion? – Yes
4. Logic flow
   - Information is logically sequential? – Yes, time intervals -> energy -> energy histograms -> energy release scaling -> interval scaling with inverses of previous data
   - Conclusions follow logically? – Yes, they are drawn from data, but I'm not sure how badly they massaged the data because the used logarithmic binning which I don't know anything about
5. Simple
   - As simple as possible? – Kind of, I don't know enough to really judge that, I would have left out some things, but I can't say if they were necessary
   - Excess notation? – No
6. Readable
   - Use of appendix for non-essential technicalities? – Yes, online datasets and stuff
   - Consistent notation? – Yes, consistent and sparingly
   - Good use of figures? – Yes, three figures that illustrate the data
   - Experiments, Simulations, Theories support key message(s)? –