Questions :

- You have applied the ISO standard, reviewed and critiqued it and you are probably one of the people who have done it to the greatest extent. If you had to improve it, what would be your priorities?
- p.3 Could you clarify the beginning of this paragraph? Don't you think MLM is both a statistical inference and a machine learning tool? I have the feeling that you are doing both exercises during your thesis or am I wrong?
- p.5/p.111 I find it misses especially the numerous major works of Catherine Marquis-Favre, in particular with GILLE, L.-A. Maybe integrate references like "Gille, L. A., & Marquis-Favre, C. (2019). Estimation of field psychoacoustic indices and predictive annoyance models for road traffic noise combined with aircraft noise. The Journal of the Acoustical Society of America, 145(4), 2294-2304." could enhance the manuscript.
- P.17, 18,19 On the critique of the soundscape definition. Bravo for this effort to go towards other community and more generally, I share very strongly your analysis. The definition that you propose seems to me very relevant and more open. Have you exchanged the result of your reflection with other researchers, what is your analysis, their reactions?
- P.19 just a small comment to go in your way, in French soundscape perception = perception of sound environment. The word soundscape was badly traduced by paysage sonore (sonic landscape) and most of acoustician use ”perception des paysages sonores”.
- P.20 Here I find it a regret, not to have a little more detailed, or at least to have referred to the paper of Francesco which describes very well the whole of the possible/used methods.
- P.39 I don't really understand your position and your use of binaural in your thesis. Can you tell me a little more about it?
- P.40 I see that you measure CO2, is there a particular reason? Is it not too much and could the protocol be soberer?
- P.41 You have a very critical review of parts 1 and 3 of the ISO standard but less of part 2. I would especially like to hear your opinion on the taxonomy of sources. (you talk a bit about the traffic/other sound sources distinction).
- P.42 It is always strange for a French person to see ethnic statistics (where it is forbidden). Could you tell me in this study what it could be used for?
- P.43 Why 100 (Engel et al.), it's a pity you don't say a little more
- P.52 This is a long question with I imagine a long answer, but briefly, can you explain how the lockdown impacted your research questions? Lack and opportunities.
- P.54 How do you relate to the "urban soundscape of the world" project initiated by Bert De Coensel?
- P.55/p.57/p.154 Personally, what do you think of mono/bi directional for soundscape attributes. I have the impression that the bivariate distribution is good especially because of the use of monosemantic scales.
- P.55, p. 141 : Did you hear the very interesting discussion at the last Internoise about eventful/arousal? What do you think about it?
- P.63 Very clear paragraph. I just wonder why you didn't also use SEM sometimes?
- P.78 Did you have any surprising results?
- P.94 Some of your variables like the problem with the LA10-LA90 are non-linear with respect to pleasantness (at least that is what I observe). Have you identified the same things, do you have anything to suggest? && P.128 : I believe and have observed a non-linear relationship between age and perceived attributes as pleasantness. This is probably also the case with you, have you explored this?

- P.94 I'm interested in the "Model selection results" section but I'm not sure I fully understand it. Could you rephrase it for me in another way?
- P.115, Table 7.2, I am very interested in this table, could you give me your interpretation again?
- P.115 “Discussion” I'm not sure it's that common! There is a scientific bias where if you don't show a link you tend to publish less, but many studies collect this information but don't show it in the results.
- P.116 Figure 7.3 Difficult for birds because the taxonomy does not separate by species and they are not all appreciated at the same level. More widely, it seems to me that the semantic content of the sound environment has more influence than its physical characteristics at the global level (as you state in the document), but sometimes also as for the birds at the source level.
- P.117 You sometimes talk about sensor network, smart-city, do you think we are going towards this kind of development for the soundscape models?
- P.128 I find it difficult to draw conclusions about "rather not say" because it combines both a non-definition and very few individuals (n=15)
- P.136: You propose a prediction of the dispersion on the values of each attribute. I really like the idea and the approach, but I regret that you do not present an analysis of the dispersion according to the axes. Is it really different? Have you started looking? The risk is for example that the mean value is not very dependent on your sample, but that the dispersion is very dependent on it. The practical impacts can then be important.
- P. 142 Very good discussion about truncated normal distribution, it's also something I regularly have trouble with when I work with the circumplex circle.
- P.146, the problem with the term appropriate is that it is often very correlated with pleasantness (which is less the case with familiar). Your observation are also in this way?
- P.152 Bravo for your effort to contribute more widely by publishing in open access your database and some of your codes
- P.156 QR Codes: It's a pity, we almost put this in place with your team in CENSE. I think it's a good idea, I'd love to see what it can do in practice.

Final : If you were to make the final equation of your work, how would you fill in this blank?

How many Pl or Ev = % Sound Level + % other global psychoacoustics factors + % sound sources + % personal facts?

P.S. If you have distributions for each of your attributes, I'm really interested to see whether or not you have a hole around the center of the circle like we discussed in the viva !