

Liao's proposal defense, April 22, 2024

- 1 - Look at the computer, not the projector screen
- 2 - Look more often to the crowd
- 3 - We must have time to read everything on the slides
- 4 - Everything on the slides must be readable
- 5 - Predict low brightness and low contrast projectors
- 6 - Number of publications (printed, submitted, in review, in prep.)
 - ↳ include expected & highlight author positions
- 7 - Cx. or C.? See notes on email (scheduled)
- 8 - I was hard for me to identify the hypotheses
- 9 - Careful with capitalization → must be consistent
 - ↳ for example, Fig. 2 on APAP-KDB
- 10 - Needs to work on narrative
 - ↳ tell them what you will tell them, tell them, and then tell them what you told them
- 11 - Focus on what you learned at least as much as what you did
- 12 - Practice leads to perfection
- 13 - ANOVA → what are the assumptions and how did you check?
- 14 - Cx. Tarsals → we must talk about taxonomic nomenclature
- 15 - Pop. Struct. → How can sample bias impact your analysis?
- 16 - Whenever possible, write tables in scientific style
 - ↳ For example, see ANOVA table
- 17 - Was there any hope for IBD & IBE not to show isolation?
- 18 - To use only PC1 for the env. data for GEA/LFMM, shouldn't PC1 be high? What would be a reasonable threshold?
- 19 - P-values → What do you know about the P-value crisis?
 - ↳ Why is it better not to use ***?
- 20 - RDA table → remind me how to read it in terms of explanation.
- 21 - What does a significant P-value mean to you?
 - ↳ Have you read Fisher (1925, 1926)?
- 22 - Does it make sense to run pop. struct. analysis in groups that do not form sister clades?
- 23 - SNPs → does gene annotation & MSA matter?
 - ↳ What was the method for annotation & alignment?
- 24 - At 30 min, I am worried you should take a breath/water
- 25 - What have we learned about the predictability of env. data for this & other mosquitos in different countries where arboviruses are endemic?
- 26 - Are horses and humans the only mammals that tested positive for WNV so far? Why?
- 27 - Could you see very abrupt changes/easily observable clusters when preparing Env. & Dem. data?
- 28 - Can Random Forests automatically handle missing values?
- 29 - Heat maps → non-parametric. PCA → parametric. Why?
- 30 - In PCAs, how did you find the variables associated with each component?
- 31 - Why isn't sample bias a challenge for preliminary data
- 32 - How does a change from national to state models help with sample bias?
- 33 - A binary prediction requires a threshold & 2 groups. Is that fair to represent your problem? Why?
- 34 - What does it mean that the baseline model always predicts the mean value?
- 35 - How do you see your research potentially being used to convince politics to invest in collecting certain data (basic research)?

The talk took 50 minutes with no pauses or interactions with the audience.