

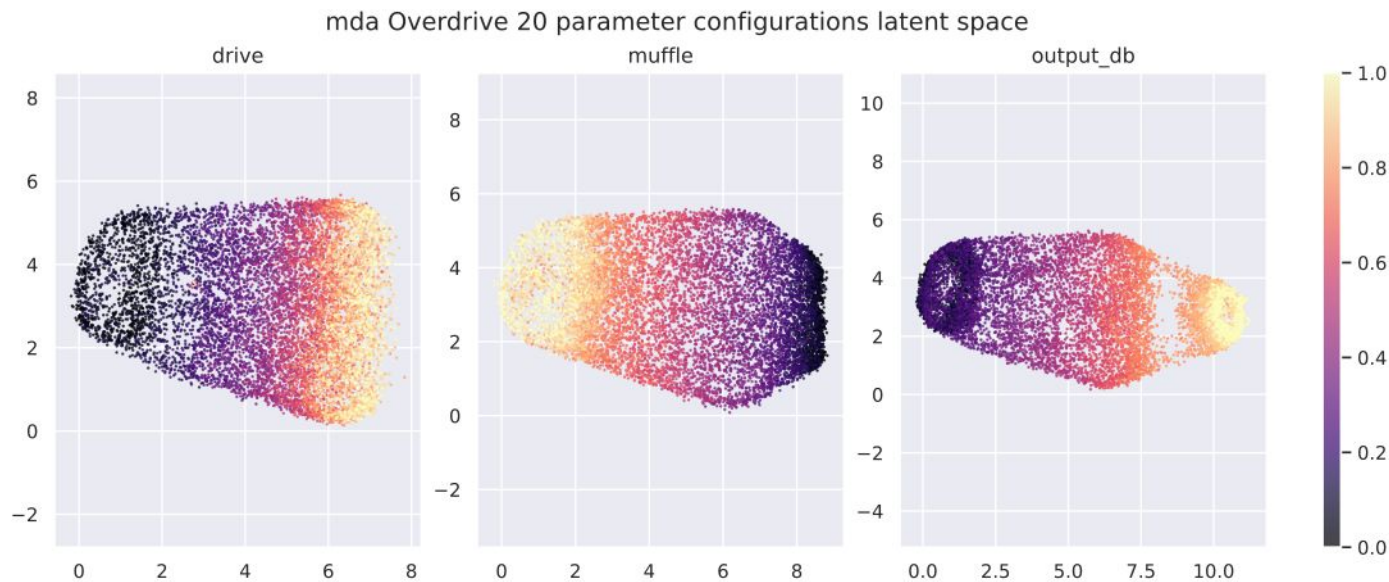
# Week 8 Meeting

2357351G - MSci Half Project

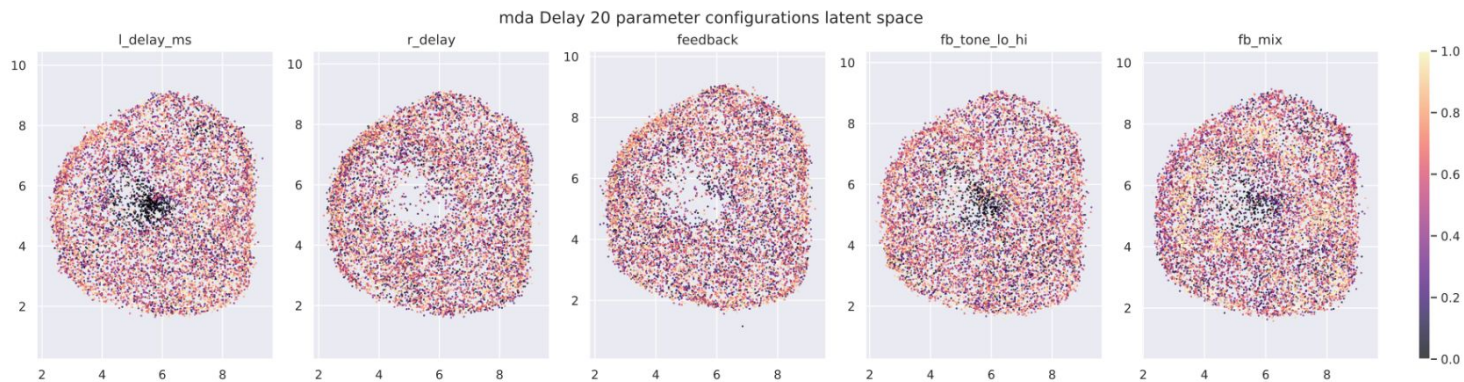
# What I've done this week

- Debugging loss issue with end-to-end (E2E) system.
- Ran E2E training with fixed parameter settings using Overdrive DAFX.
- Ran E2E training with random parameter settings using Overdrive DAFX.
- Ran E2E training with fixed parameter settings using Delay DAFX.
- Created visualisations of interpolating between individual parameter settings and their mapping to the latent space.
- Created visualisations of domain colouring of latent space.

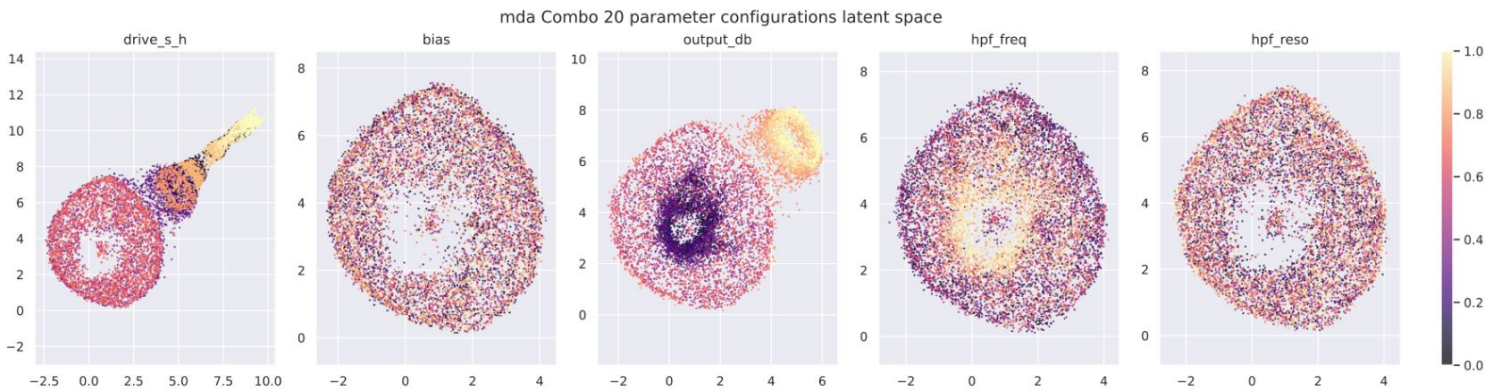
# Interpolation of Parameter Settings (Overdrive)



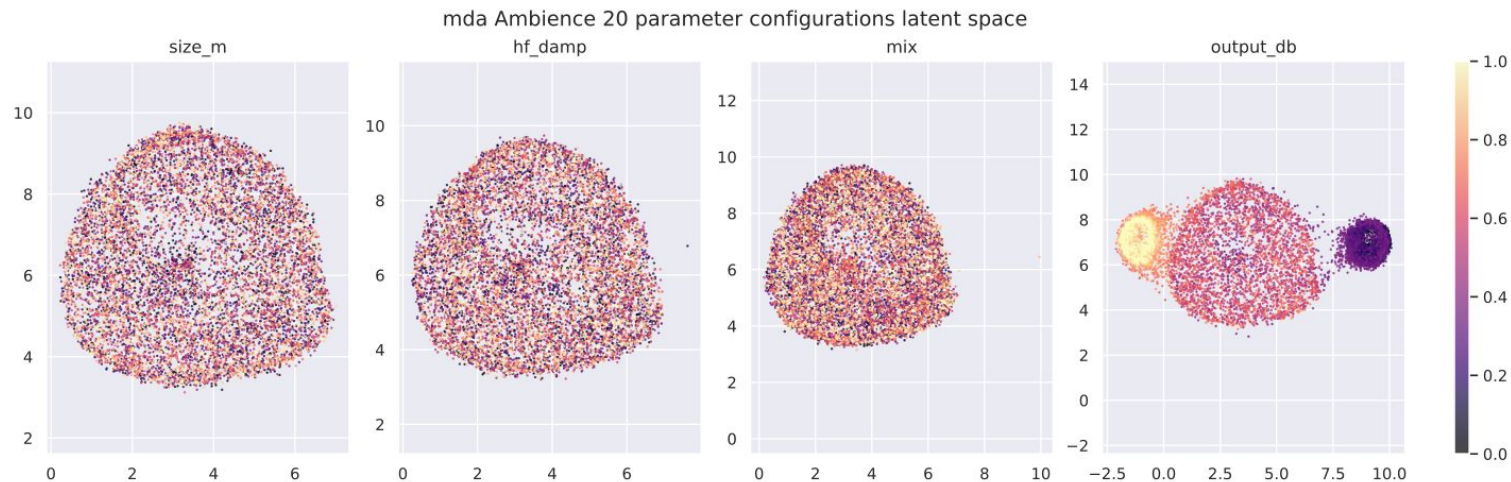
# Interpolation of Parameter Settings (Delay)



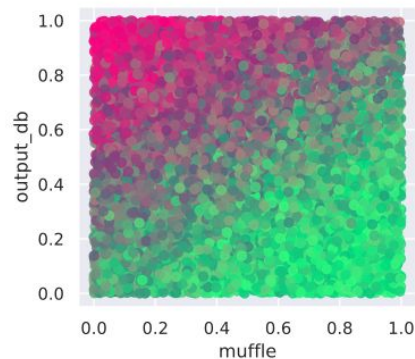
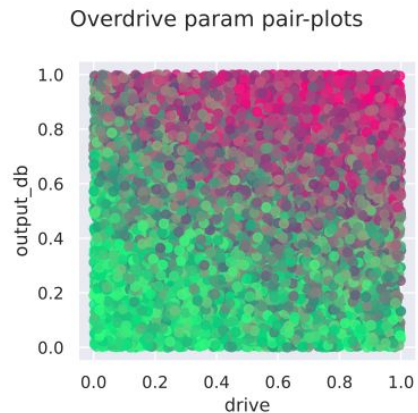
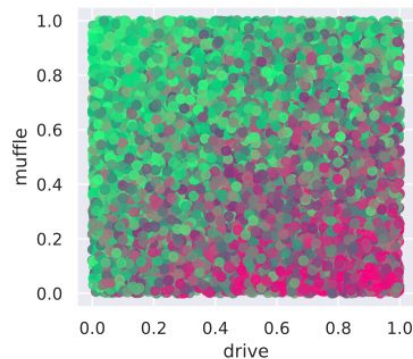
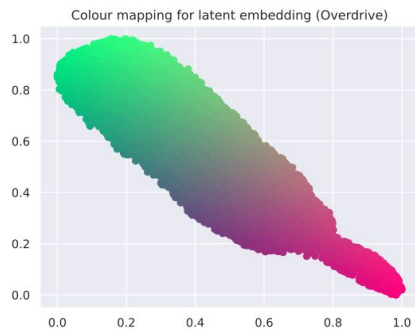
# Interpolation of Parameter Settings (Combo)



# Interpolation of Parameter Settings (Ambience)

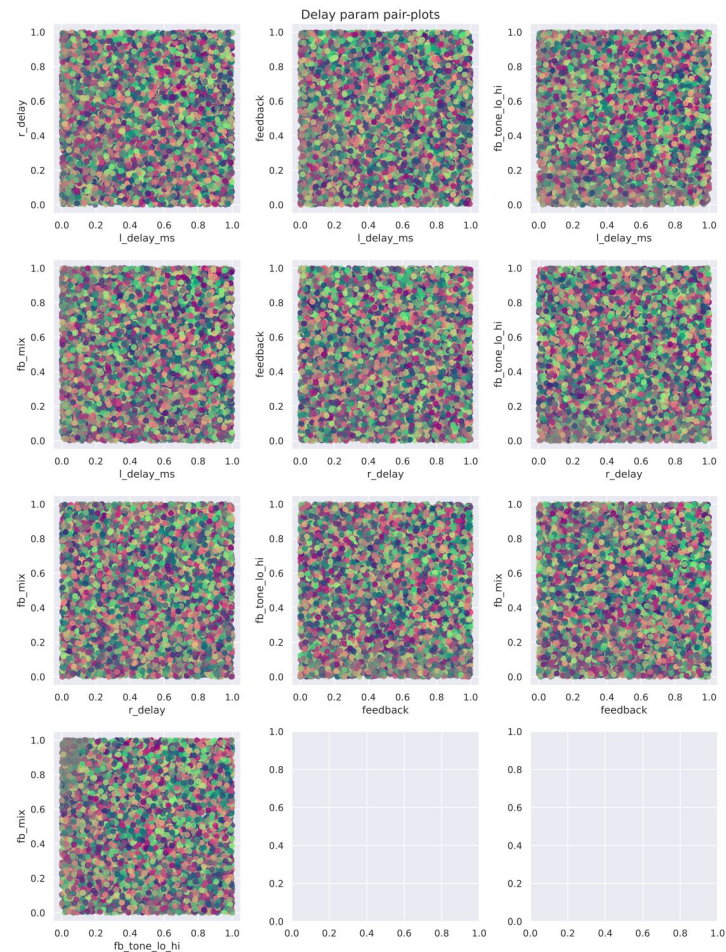
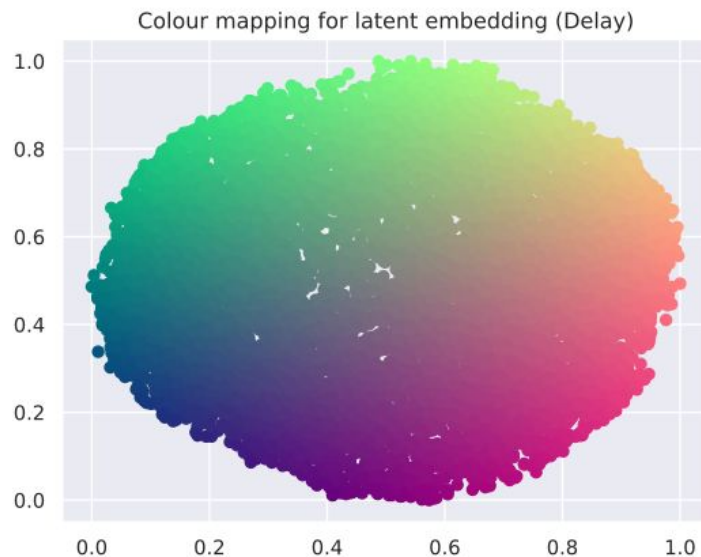


# Domain Colouring (Overdrive)



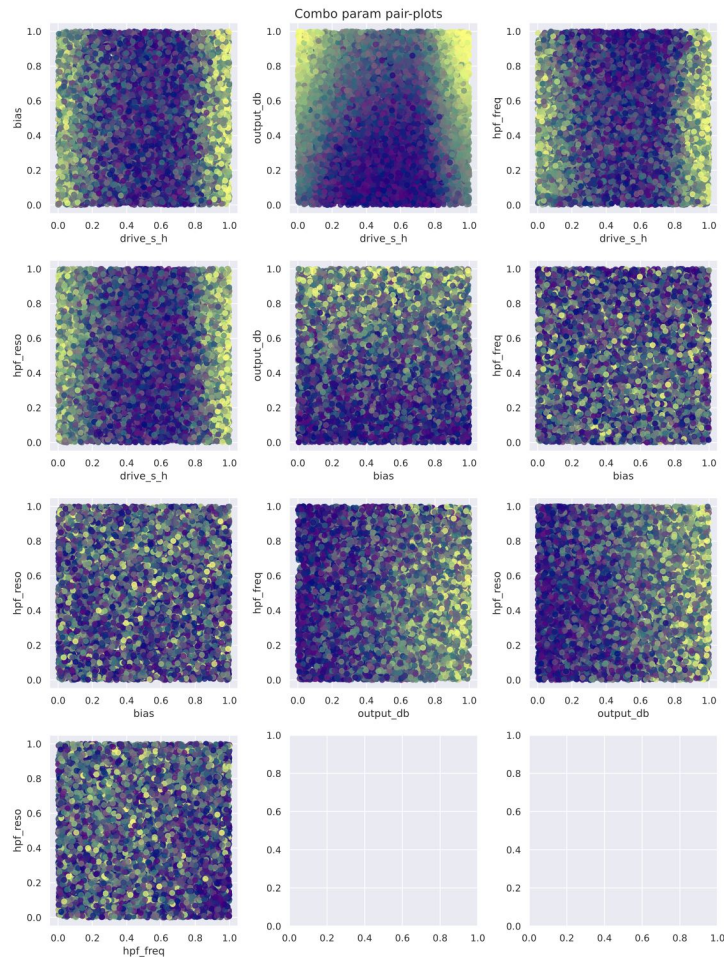
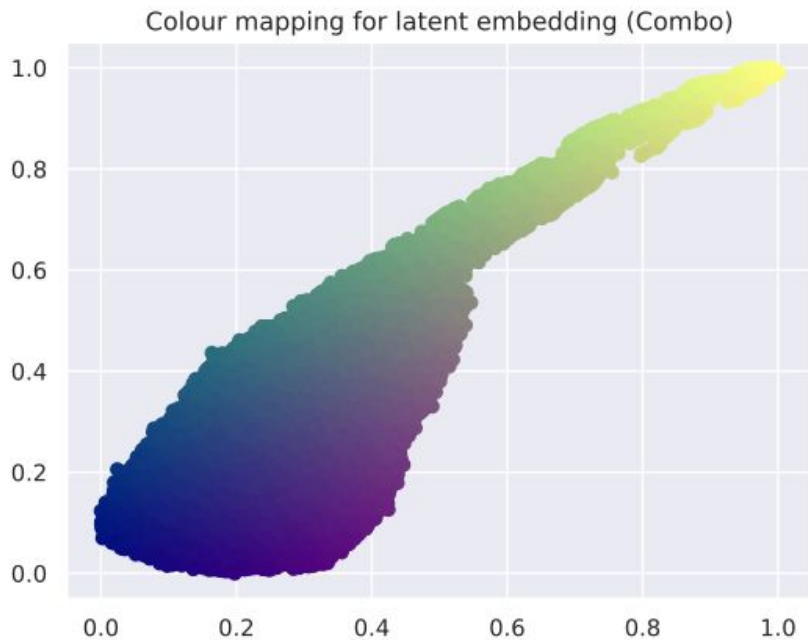


# Domain Colouring (Delay)

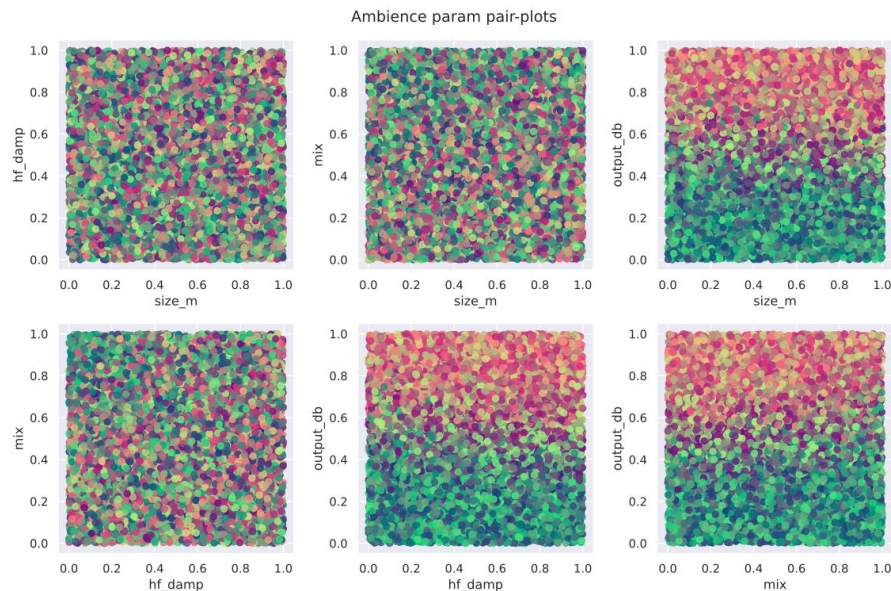
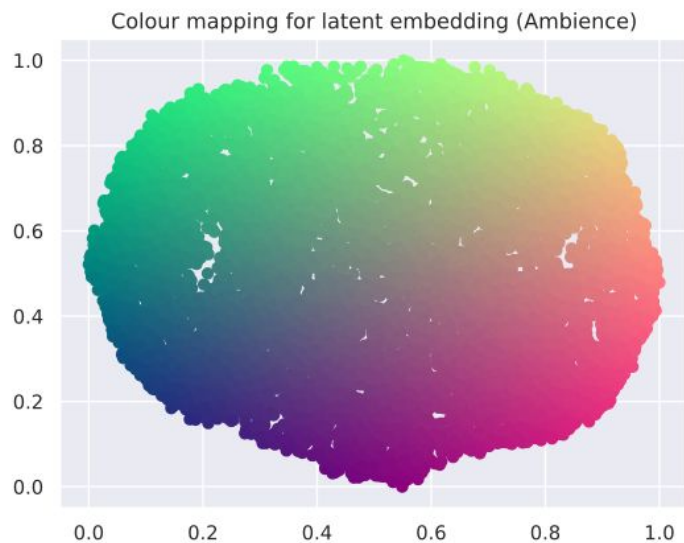




# Domain Colouring (Combo)



# Domain Colouring (Ambience)



# Overdrive Random-Setting Audio Example 1

**Input:**



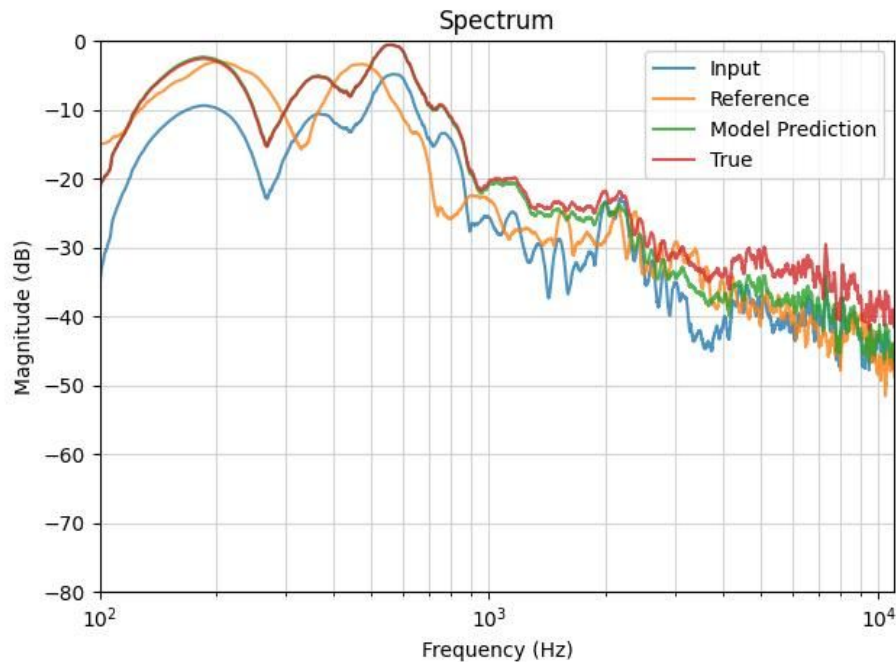
**Reference:**



**True:**



**Prediction:**



# Overdrive Random-Setting Audio Example 2

**Input:**



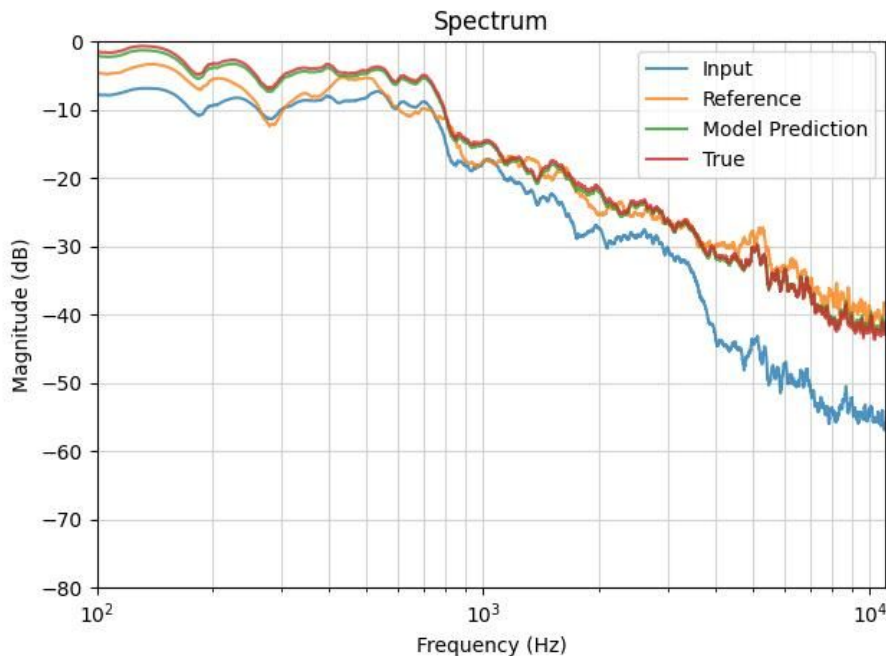
**Reference:**



**True:**



**Prediction:**



# Overdrive Random-Setting Audio Example 3

**Input:**



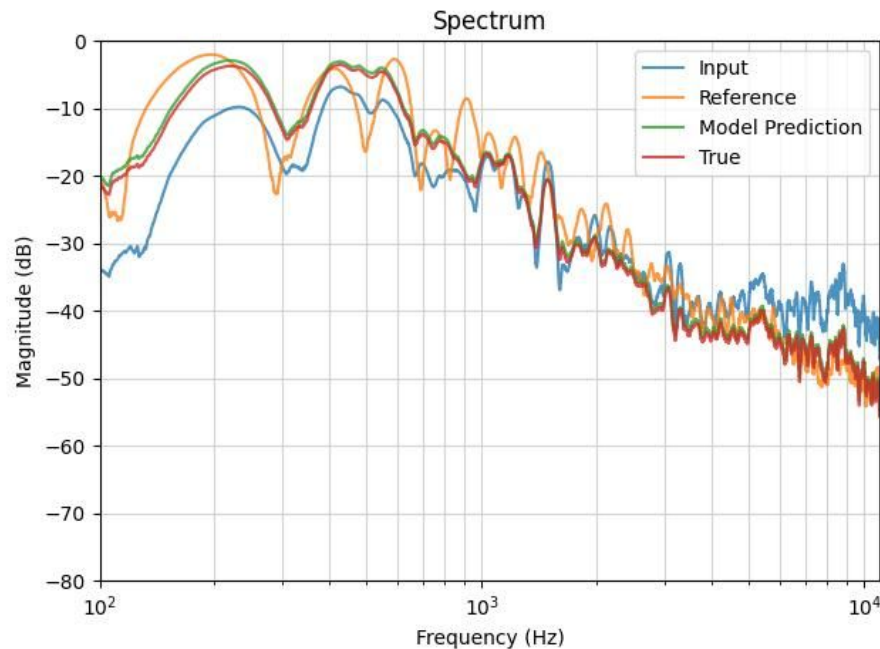
**Reference:**



**True:**



**Prediction:**



# Questions

- Do you have any thoughts on the sensitivity to the initial conditions of the model? Is there some initialisation of weights which could help prevent something like that happening, or should I be clamping the output range more than just using sigmoid activation?

# Plan for next week

- Debugging the initial condition issue.
- End-to-end run with delay: static and random settings.
- Start implementation of low-dimensional space for parameter adjustment (using UMAP).
- Finalise evaluation plan.



# Where I am in schedule

- End-to-end model seems to be able to learn parameter settings for Overdrive effect, need some more debugging for Delay.
- Feels as though I am nearing the end of the implementation phase of the project.