

COM-418: Spatial Audio Project

Sebastien Ollquist, Antonio Pisanello, Daniel Suter.

EPFL

Spring 2022

Project Goal

1. Create an immersive listening experience by spatialising some music file
2. Add sound source locations
3. Possibly play with some filters to create a high quality listening experience

Motivations

1. Sebastien is impressed by how this spatial technology works (he was the main reason why we chose the project to be honest, otherwise we would have done something else). Just kidding :)
2. TODO: change this.

Challenges

1. Understand the math behind HRTFs, binaural rendering and all that stuff

Preliminary results

1. We can already create an immersive experience by superposing the original signal with the same one delayed.
2. We can generate an audio file with respect to the direction we set
3. For the rest of the project, our aim is to merge the two points above...
4. ... and play with some filters a little more to enhance the listening experience.

The End

Thank you for listening. Now, questions (if any).