COM-418: Project on Spatial Audio

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EPFL

Spring 2022

What is spatial audio ?

- ▶ Spatial audio is a 3D version of stereo
- ▶ It replicates a completely new acoustic environment
- ▶ It enhances one's listening experience !

Project Goals

We use the Python spaudiopy package. Our goals are:

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. Our love for music.
2. Our love for computers.
3. We wanted to discover into more detail how spatialising audio really works.

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 enhance the spatial effect based on our current results...
4. ... and play with some filters a little more to enhance the listening experience.

Challenges

- ▶ No real challenges as of yet, we are still in a testing phase.
- ▶ Potentially, we could deal with the more technical parts behind spatial audio that include the math of HRTFs and the difficulty of 3D space representation.

The End

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