# Acoustic Screens

SIMULATION TECHNIQUES IN ACOUSTICS

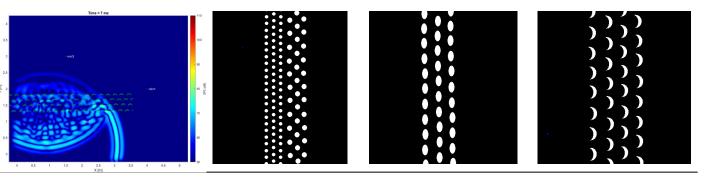
Marcelo Argotti Gomez

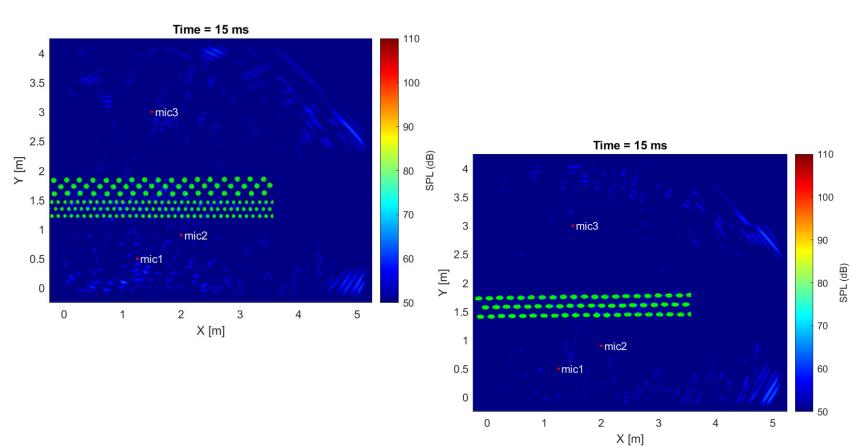


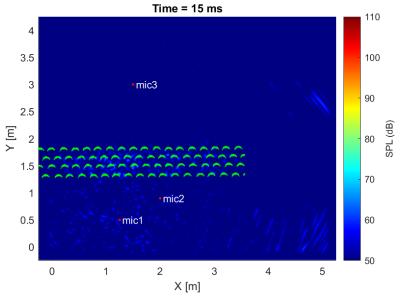




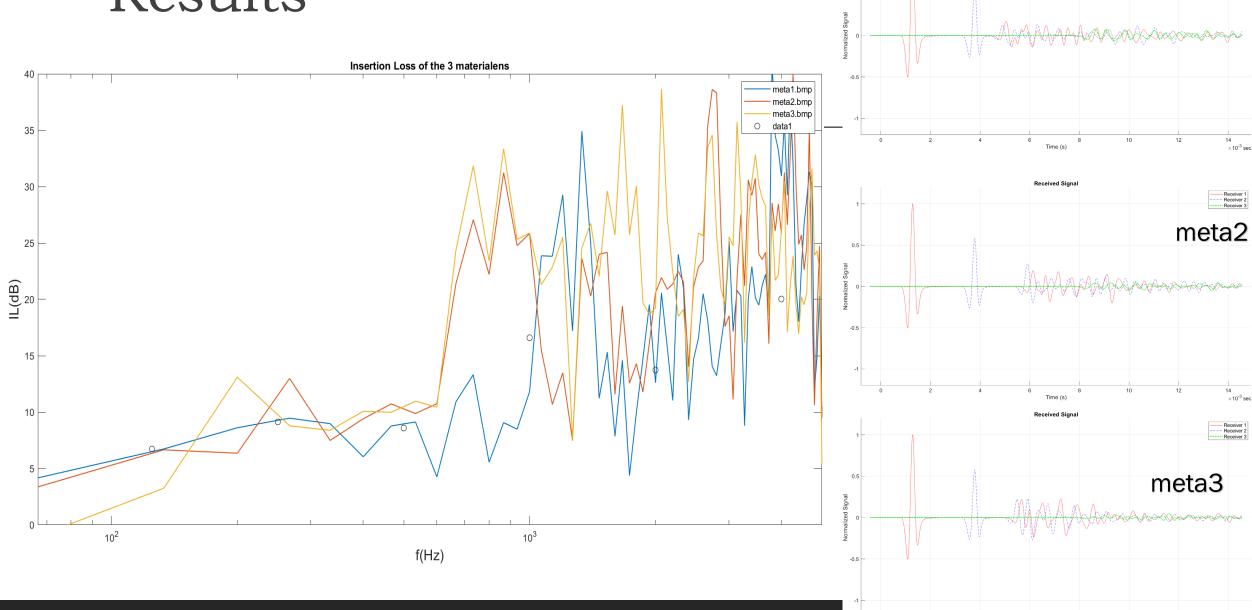
### Overview







#### Results



Received Signal

Receiver 1
Receiver 2
Receiver 3

meta1

#### Conclusions and final remarks

The specific application of an acoustic screen will determine the most appropriate design and material selection. In the present case, a near-field acoustic screen has been achieved.

Setting boundary conditions > 0 to the acoustic screen will affect the refractive index of the screen media, hence the speed of sound will change as it travels through it.

Implement GRIN (gradient index) to test if it is possible to achieve focusing around the center frequency of the wavelet.

## Bibliography

Alagoz, Baris Baykant, and Serkan Alagoz. "Towards Earthquake Shields: A Numerical Investigation of Earthquake Shielding with Seismic Crystals." Open Journal of Acoustics, vol. 01, no. 03, Scientific Research Publishing, Inc., 2011, pp. 63–69, doi:10.4236/oja.2011.13008.

J. Redondo, "Block 2: Finite difference time domain method (FDTD), UPV." Lecture slides, 2024.