Audio Denoising Tutorial

This GitHub repo contains sample audio files recorded in adverse conditions to practice denoising. The goal is to make these two audio files recorded by different talkers in different conditions through different microphones sound as much as possible like they were collected in a controlled environment. This process as laid out here uses three separate third-party programs: Praat, Adobe Audition, and iZotope RX. The general workflow is:

1. Low pass
2. High pass
3. Remove reverb
4. Denoise
5. Normalize volume
6. Add uniform noise

1. Low pass

The most informative acoustic cues for speech perception generally live below about 12,000 Hz. Cues higher than that are also informative but generally contain more information about the space where a recording was made than about the speech. That means it's a good idea to low-pass audio at around 12,000 Hz.

To "low-pass" audio means to define some cut-off point below which all frequencies are still audible, but above which, frequencies are removed.

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