Comfortable Sound Design for Pump by Adding Consonance in Consideration of Amplitude Modulated Pure Tones
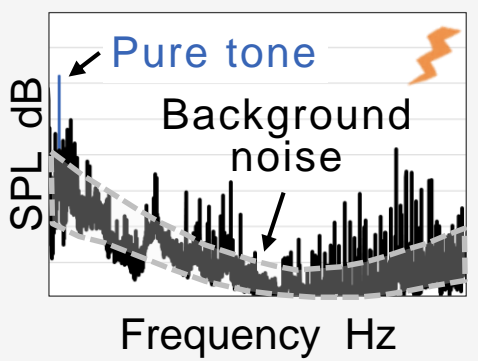
2023
M2 Hayato Hirosawa

Background
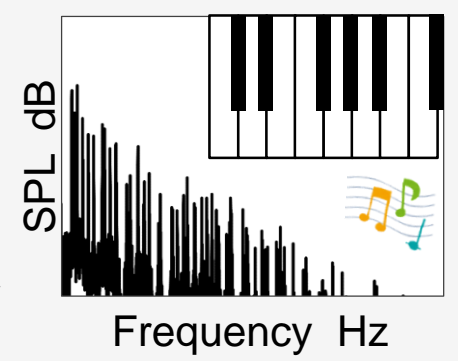
Pump sound
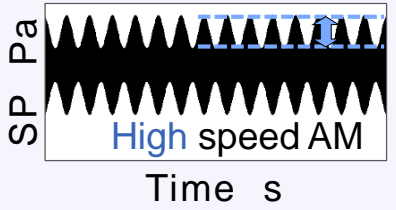Loud and AM (amplitude modulated) pure tone
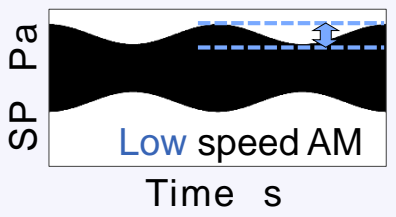→Uncomfortable

Consonance
Pure tones harmonize with each other
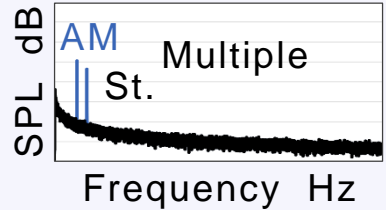→Comfortable

Adding consonance for Pump sound

Contents

For simulated sound

AM pattern

Low speed AM

High speed AM

Number of pure tones

Single

Multiple St.
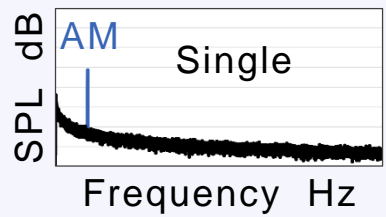
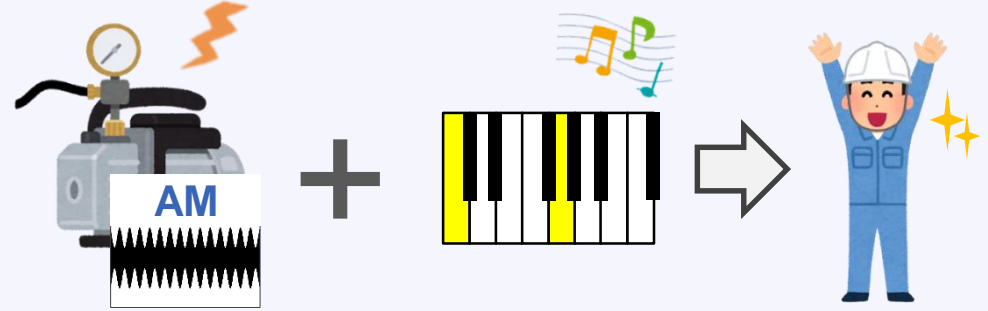Study of comfortable addition conditions

For pump sound

Pump sound + Consonance

Evaluation of adding consonance

Proposal comfortable sound design