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Hearing aid fitting using the loudness validation method

In this presentation, I shall give an overview of how the loudness validation method (Jansen et al. 2020) is used for fitting hearing aids at the Hörzentrum Oldenburg hearing centre. The loudness validation method uses sixty natural signals to test deviations from normal loudness perception. The results are displayed in coloured fields for the frequency ranges lows, mids, highs, and for broadband signals at three levels, 50 dB (soft), 65 dB (medium), and 80 dB (loud).

The initial fittings of the hearing aids are adjusted according to the trueLOUDNESS gains (Oetting et al. 2018). Loudness perception is then tested using the loudness validation method in free field. In case of deviations from normal loudness perception, gain corrections can be applied in the first appointment.

Examples of hearing aid fittings are presented where special gain adjustments were needed to normalise loudness perception. These special gain adjustments include compression ratios greater than 3:1 and gains at frequencies with normal hearing thresholds.