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More everyday relevance, better first fitting: AI from self-fitting data as a complement for hearing care professionals

This contribution demonstrates how self-fitting can provide ecologically valid data to enhance hearing aid fitting. In a collaborative project between sincEARE UG, Fraunhofer IDMT, and Geriatrics Research Group of Charité, interaction data from guided fine-tuning sessions were used to develop a personalized AI model for initial fitting and follow-up adjustments.[1, 2].

In a study with 30 participants with hearing loss (55+, mild to moderate), the AI-based approach was compared to a conventional NAL-NL2 [3] first-fit. Outcomes included speech intelligibility, loudness, listening effort, and user preference.

Results indicate that AI models trained on self-fitting data provide comparable, and often preferred, settings. The approach complements the work of hearing care professionals, supports active user involvement, and opens new possibilities for more individualized and adaptive fitting in everyday environments.