

SPATIAL REPOSITIONING OF MULTIPLE AUDIO STREAMS

ABSTRACT OF THE DISCLOSURE

An audio rendering system includes a processor that combines audio input signals with personalized spatial audio transfer functions preferably including room responses. The personalized spatial audio transfer functions are selected from a database having a plurality of candidate transfer function datasets derived from in-ear microphone measurements for a plurality of individuals. Alternatively, the personalized transfer function datasets are derived from actual in-ear measurements of the listener. Foreground and background positions are designated and matched with transfer function pairs from the selected dataset for the foreground and background direction and distance. Two channels of input audio such as voice and music are processed. When a voice communication such as a phone call is accepted the music being rendered is moved from a foreground to a background channel corresponding to a background spatial audio position using the personalized transfer functions. The voice call is simultaneously transferred to the foreground channel.

Fig. 1