Title (en)
METHOD AND APPARATUS FOR GENERATING A DIRECTIONAL SOUND SIGNAL FROM FIRST AND SECOND SOUND SIGNALS

Title (de)
VERFAHREN UND VORRICHTUNG ZUR ERZEUGUNG EINES GERICHTETEN TONSIGNALS AUS ERSTEN UND ZWEITEN TONSIGNALEN

Title (fr)
PROCÉDÉ ET APPAREIL DE GÉNÉRATION D'UN SIGNAL SONORE DIRECTIONNEL À PARTIR DE PREMIER ET DEUXIÈME SIGNAUX SONORES

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Abstract (en)
[origin: WO2016045706A1] The present invention relates to a method for generating a directional sound signal $(y(k))$ from first and second sound signals $(x_1(k), x_2(k))$, which are generated by a first and a second microphone (M1, M2), which are separated by a distance (D). The method comprises generating first and second differential sound signals $(x_f(k), X_{b,DEQ}(k))$ based on the first and second sound signals $(x_1(k), x_2(k))$, and generating the directional sound signal $(y(k))$ according to a frequency-dependent directional response pattern based on the first and second differential sound signals $(x_f(k), X_{b,DEQ}(k))$. The generating of the second differential sound signal $(X_{b,DEQ}(k))$ comprises generating a difference signal $(x_b(k))$ of the first and the second sound signals $(x_1(k), x_2(k))$ and a frequency-selective processing that depends on a steering angle (a), which indicates a desired direction of maximum attenuation of the frequency-dependent directional response pattern, wherein the frequency-selective processing adjusts the actual direction of maximum attenuation of the frequency-dependent directional response pattern to correspond to the steering angle (α) substantially independent of frequency (ω) over the frequency range of the directional sound signal $(y(k))$.

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