

Title (en)

METHOD FOR DETERMINING AN AVERAGED FREQUENCY DEPENDENT TRANSFER FUNCTION FOR A DISTURBED LTI-SYSTEM, EVALUATION UNIT AND COMPUTER PROGRAM

Title (de)

VERFAHREN ZUM BESTIMMEN EINER GEMITTELTEN FREQUENZABHÄNGIGEN ÜBERTRAGUNGSFUNKTION FÜR EIN GESTÖRTES LINEARES ZEITINVARIANTES SYSTEM, AUSWERTEVORRICHTUNG SOWIE COMPUTERPROGRAMMPRODUKT

Title (fr)

PROCÉDÉ DE DÉTERMINATION D'UNE FONCTION DE TRANSFERT À MOYENNE DÉPENDANT DE LA FRÉQUENCE POUR UN SYSTÈME D'INVARIANCE DE TEMPS LINÉAIRE (LTI) PERTURBÉ, UNITÉ D'ÉVALUATION ET PROGRAMME D'ORDINATEUR

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Abstract (en)

[origin: WO2010142262A1] The invention relates to a method for determining an averaged frequency-dependent transmission function for a disturbed linear time-invariant system by means of an evaluation device (3), wherein the method comprises providing frequency-dependent reference signals, which are derived from excitations applied to a linear time-invariant system, providing frequency-dependent measurement signals for the linear time-invariant system, said signals being associated with the frequency-dependent reference signals, and determining an averaged frequency-dependent transmission function for the linear time-invariant system, in that frequency-dependent transmission functions are determined by employing a signal unfolding process for mutually associated measurement signals and reference signals, and the frequency-dependent transmission functions are averaged, and wherein during the determination of the averaged frequency-dependent transmission function at least a portion of the determined frequency-frequency transmission functions is considered in the averaging process, in accordance with a related frequency-dependent weighting. The invention further comprises an evaluation device for determining an averaged frequency-dependent transmission function for a disturbed linear time-invariant system and to a computer program product.

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