

Title (en)

METHOD AND DEVICE FOR IMPROVING THE PASSBAND OF A PHYSICAL SYSTEM

Title (de)

VERFAHREN UND SYSTEM ZUR ERHÖHUNG DES DURCHLASSBEREICHES EINES PHYSIKALISCHEN SYSTEMS

Title (fr)

PROCEDE ET DISPOSITIF POUR AMELIORER LA BANDE PASSANTE D'UN SYSTEME PHYSIQUE

Publication

**EP 2243218 A1 20101027 (FR)**

Application

**EP 09712207 A 20090209**

Priority

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- FR 0800885 A 20080219

Abstract (en)

[origin: WO2009103624A1] The invention relates to the improving of the passband of physical systems. Use is made of a finite impulse response filter which is designed in the following manner, on the basis of the behaviour (observed or known) of the physical system (SP): the impulse response  $a(t)$  of the physical system according to a temporal or spatial variable is determined; an impulse response  $b(t)$  is calculated, sampled by sample, said response being of similar form but compressed according to the scale of the variable  $t$  in a ratio  $n$  and amplitude-dilated in the same ratio, and the coefficients of a finite impulse response filter able to provide the signal  $b(t)$  at its output when the signal  $a(t)$  is applied to its input are calculated. This finite impulse response filter is incorporated into the physical system, preferably at the output, so as to improve the passband thereof in the ratio  $n$ .

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