Title (en)
METHODS FOR DIAGNOSING AND AUTOMATICALLY CONTROLLING THE OPERATION OF A PARTICLE ACCELERATOR

Title (de)
VERFAHREN ZUM DIAGNOSTIZIEREN UND AUTOMATISCHEN STEUERN DES BETRIEBS EINES TEILCHENBESCHLEUNIGERS

Title (fr)
PROCÉDÉS POUR DIAGNOSTIQUER ET COMMANDER AUTOMATIQUEMENT LE FONCTIONNEMENT D'UN ACCÉLÉRATEUR DE PARTICULES

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EP 2243340 A1 20101027 (EN)

Application
EP 09706715 A 20090130

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• US 35123409 A 20090109

Abstract (en)
[origin: WO2009097536A1] Methods are described wherein the signals from various sensors that monitor parameters such as beam position, beam intensity at each turn, number of turns, extracted current, extracted beam profile in space and energy are used to determine the effect of the variation of different parameters that control the operation of an accelerator. The diagnostic measurements and adjustments may be based upon measuring and evaluating parameters as a function of turn, and are part of an automated feedback loop for achieving the proper automated operation. The methods can be used to establish proper operating values for the accelerator parameters for optimum beam operation. By the use of feedback the operation of the accelerator can be automatically controlled in real time.

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