

Title (en)

METHOD AND DEVICE FOR CORRECTING A PULSE STACK FOR A RADIATION DETECTOR

Title (de)

VERFAHREN UND VORRICHTUNG ZUR KORREKTUR EINES IMPULSSTAPELS FÜR EINEN STRAHLUNGSDETEKTOR

Title (fr)

PROCEDE ET DISPOSITIF DE CORRECTION D'EMPILEMENT D'IMPULSIONS POUR UN DETECTEUR DE RAYONNEMENT

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Application

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Priority

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Abstract (en)

[origin: WO2012101332A1] The patent relates to a method and device for integrating electronic pulse signals output by a gamma radiation detector, and for correcting pre-pulse and post-pulse stack effects. The device uses an architecture having a double integrator which operates in parallel, the first integrator partially integrating the portion of the signal that precedes the pulse, and the second integrator integrating the pulse signal itself. The first integrator (441) performs a partial integration of the signal before the pulse, i.e. a rapid measurement of any pulse tail of a preceding event. Then, an estimation of the value of the pre-pulse stack correction is calculated by extrapolation, from this measured value and in accordance with the value of the integration time used in the second integrator (401), of a model of the shape of the pulse, and of the value of the time separating the current event (during the integration in the second integrator) and the preceding event. The output of the second integrator, which integrates the signal of the current event over a time period that can be shortened when a post-pulse stack is generated, is corrected simultaneously with the pre-pulse stack effect and the variable integration time using the same pulse-shape model.

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