

scintillatorPSD Proposed Example

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Outline

1 Motivation

2 Theory

3 Example

4 Results

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Furthermore, the PMTs and digitizers in said examples appear to be relatively basic.

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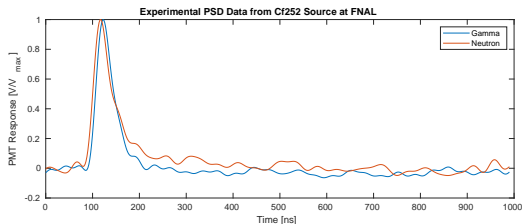
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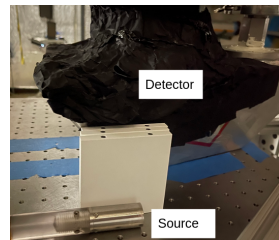
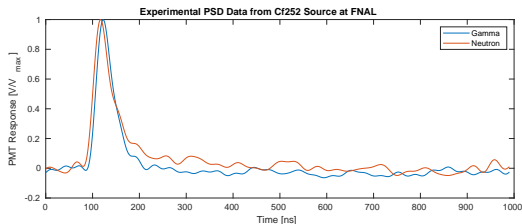
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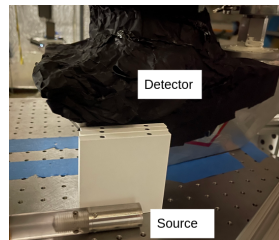
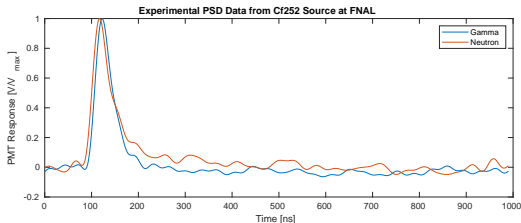
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Must somehow use this to discriminate between the signals...

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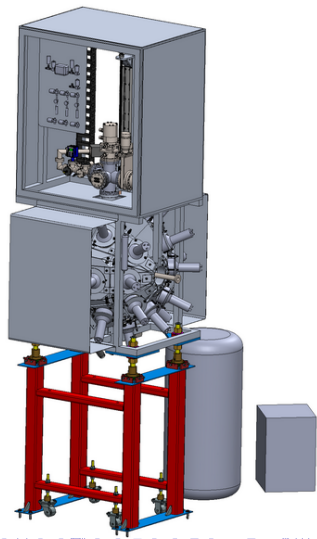
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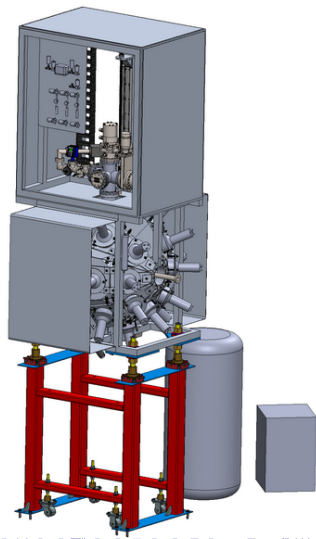
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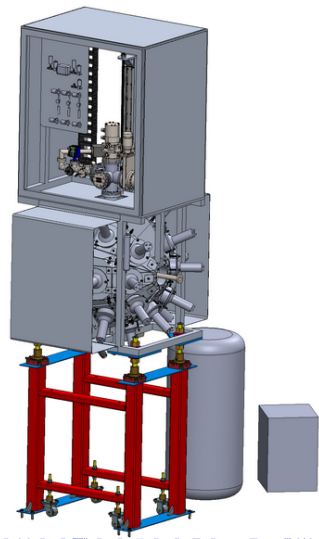


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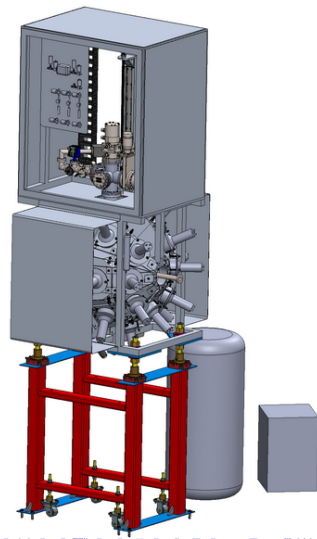
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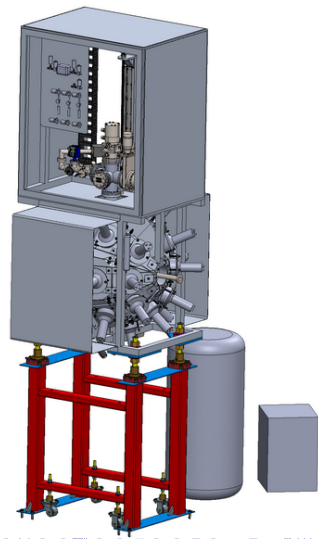
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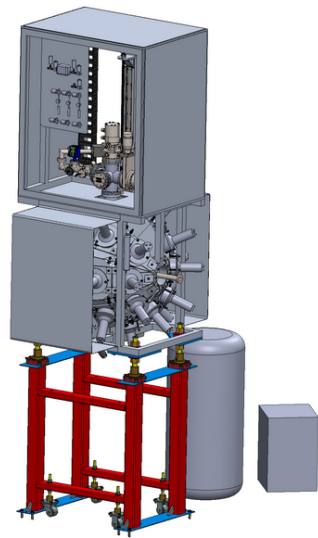
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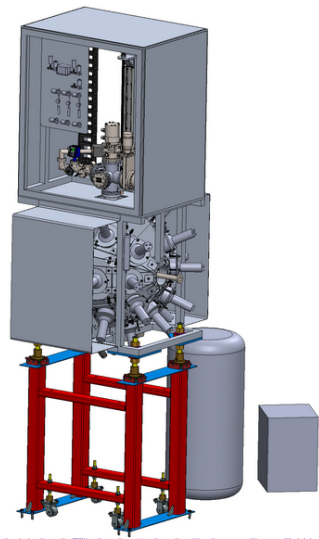
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- many other use-cases.



Theory

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This is **all modelled in G4Scintillation** (some proposed improvements pending).

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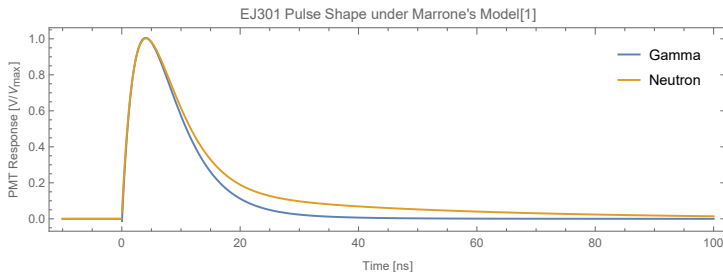
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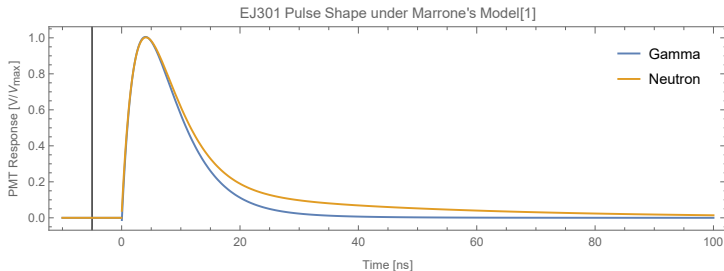
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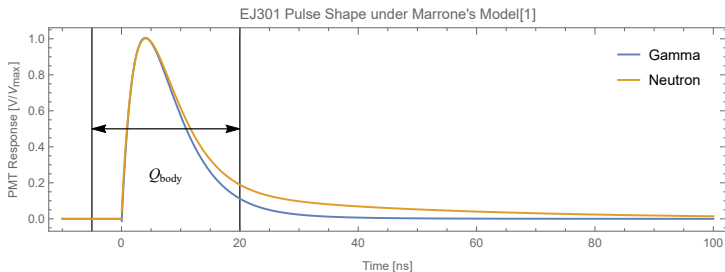
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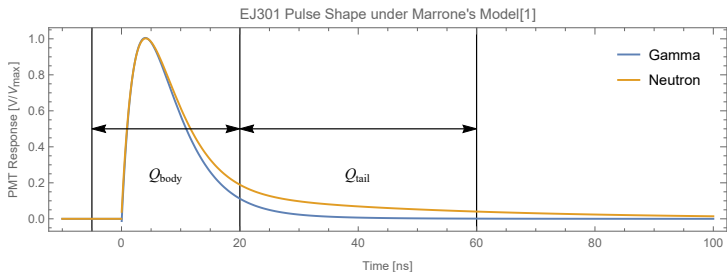
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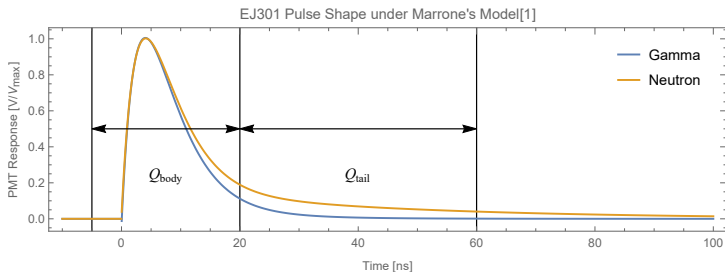
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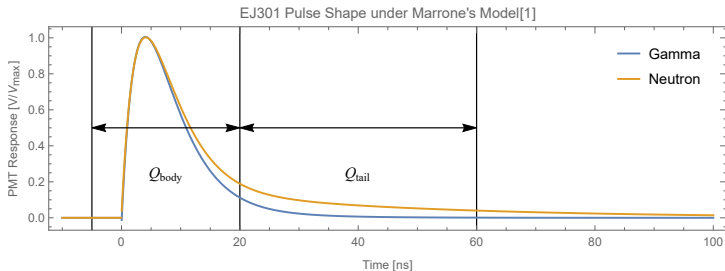


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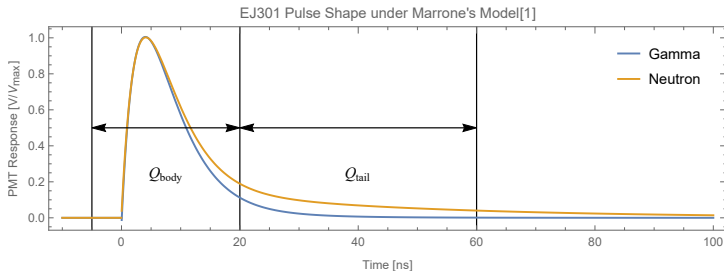
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Example

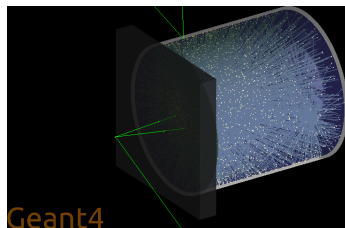
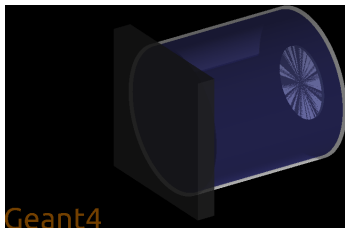
Example Specifications

Following '3CYL' cylindrical detector experiment from¹.

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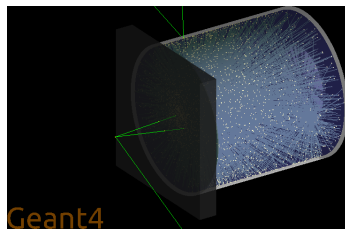
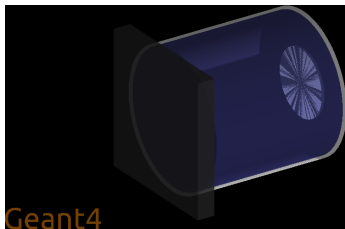
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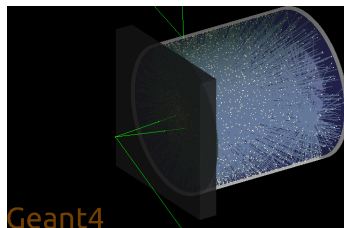
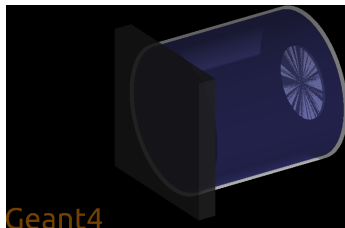


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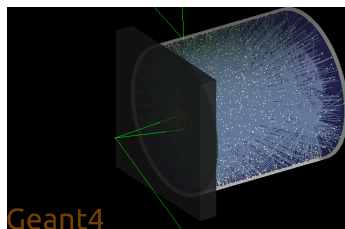
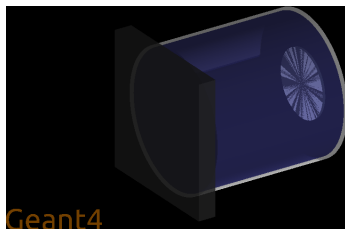


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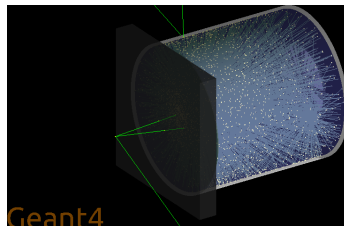
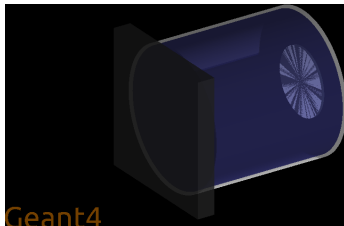
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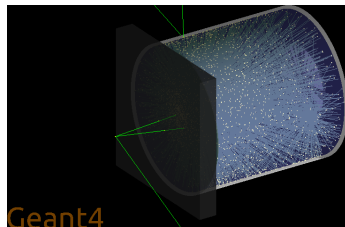
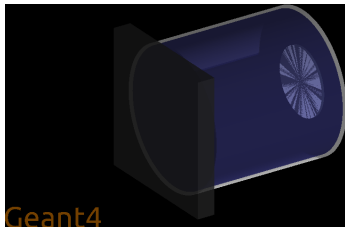
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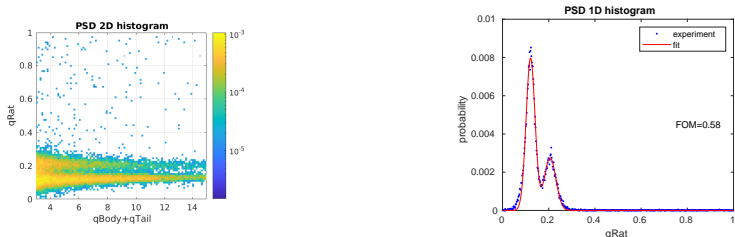
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Experimental¹ PSD with Cf252 source (different detector geometry):

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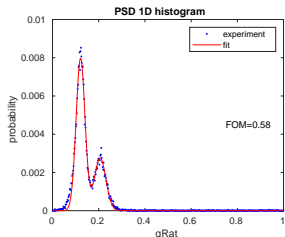
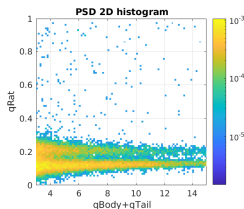
Experimental¹ PSD with Cf252 source (different detector geometry):



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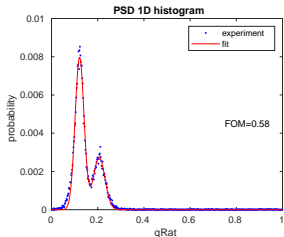
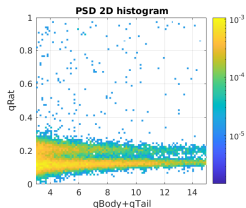
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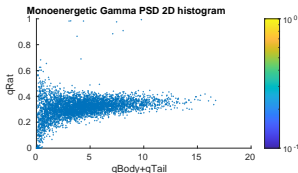
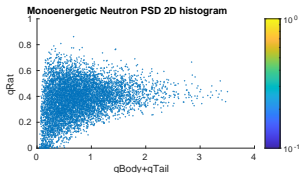
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Thank you for having me.

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