



## Concluding remarks from Detectors WG

### Configuration 1 Phoswich

### Configuration 2 Long LaBr<sub>3</sub>(Ce)

### Configuration 3 «Two shells»

Concept	1x1x2 LaBr <sub>3</sub> (Ce) + 1x1x6 CsI(Na) 2x2x2 LaBr <sub>3</sub> (Ce) + 2x2x6 CsI(Na) or other shape/size ?	1x1x4 (6) 2x2x4 (6) or other shape/size?	1x1x2 LaBr <sub>3</sub> (Ce) + APD /SiPM and 1x1x6 CsI(Na) + PM/SiPM 2x2x2 LaBr <sub>3</sub> or other shape/size?
Energy Resolution <3% @ 662 keV	LaBr <sub>3</sub> : 4,0% - CsI(Na) : 13,1%	3,08 %	1x1x2 LaBr <sub>3</sub> +PM :2.5% + APD : 6% Resolution remains constant with the detector size
Time Resolution < 1 ns	not done yet	< 1ns	< 1ns
n/γ discrimination	by time of flight	by time of flight	by time of flight
Pileup	Just started - need more investigation	not done yet	not done yet
Cross-talk	not done yet	not done yet	not done yet



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- More promising : «long» LaBr<sub>3</sub>
  - Timing obtained with short LaBr<sub>3</sub> detector valid but at the limit for  $E_\gamma < 121 \text{ keV}$  (1.2ns)
  - Price is roughly the same as a phoswich



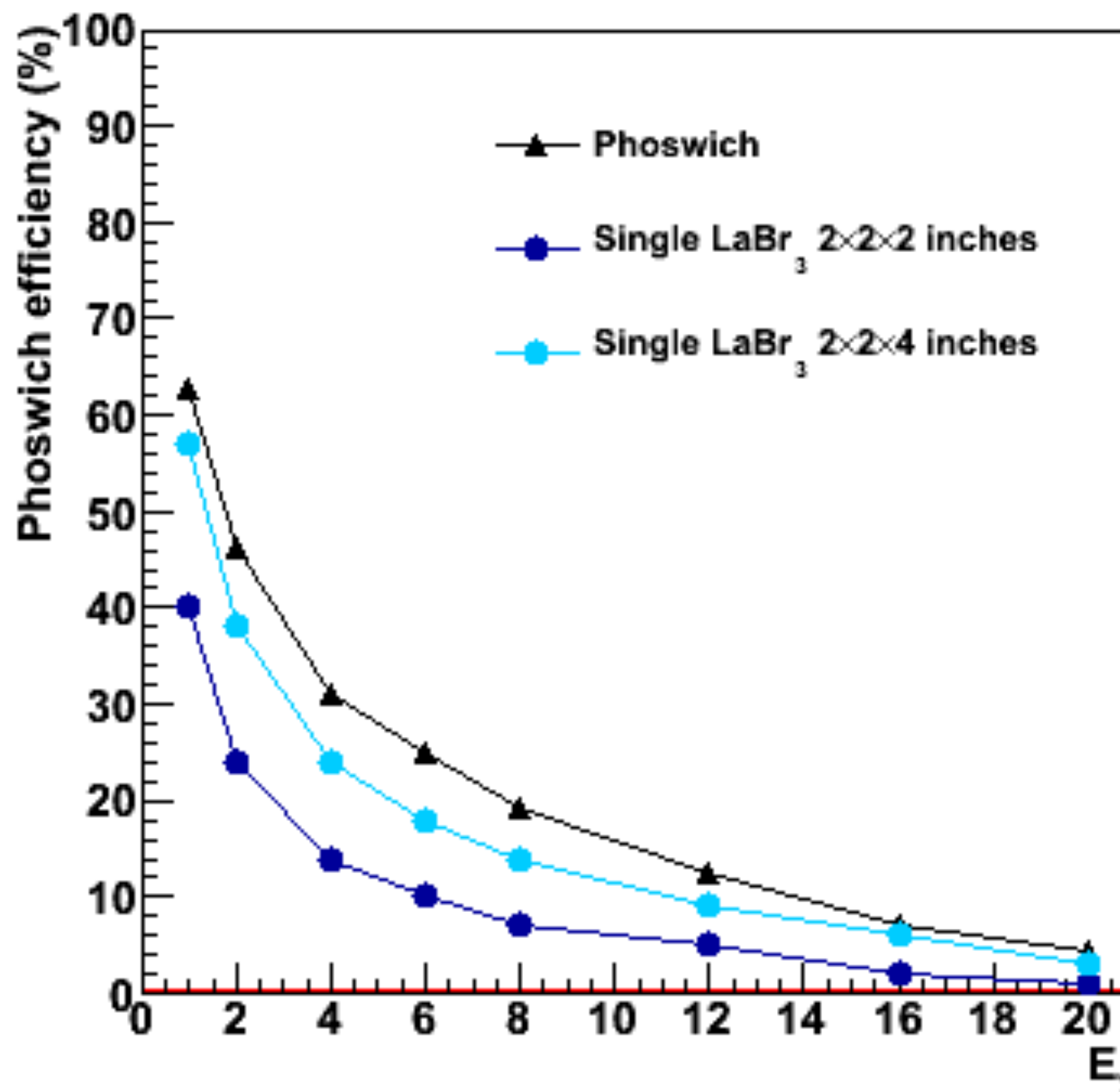
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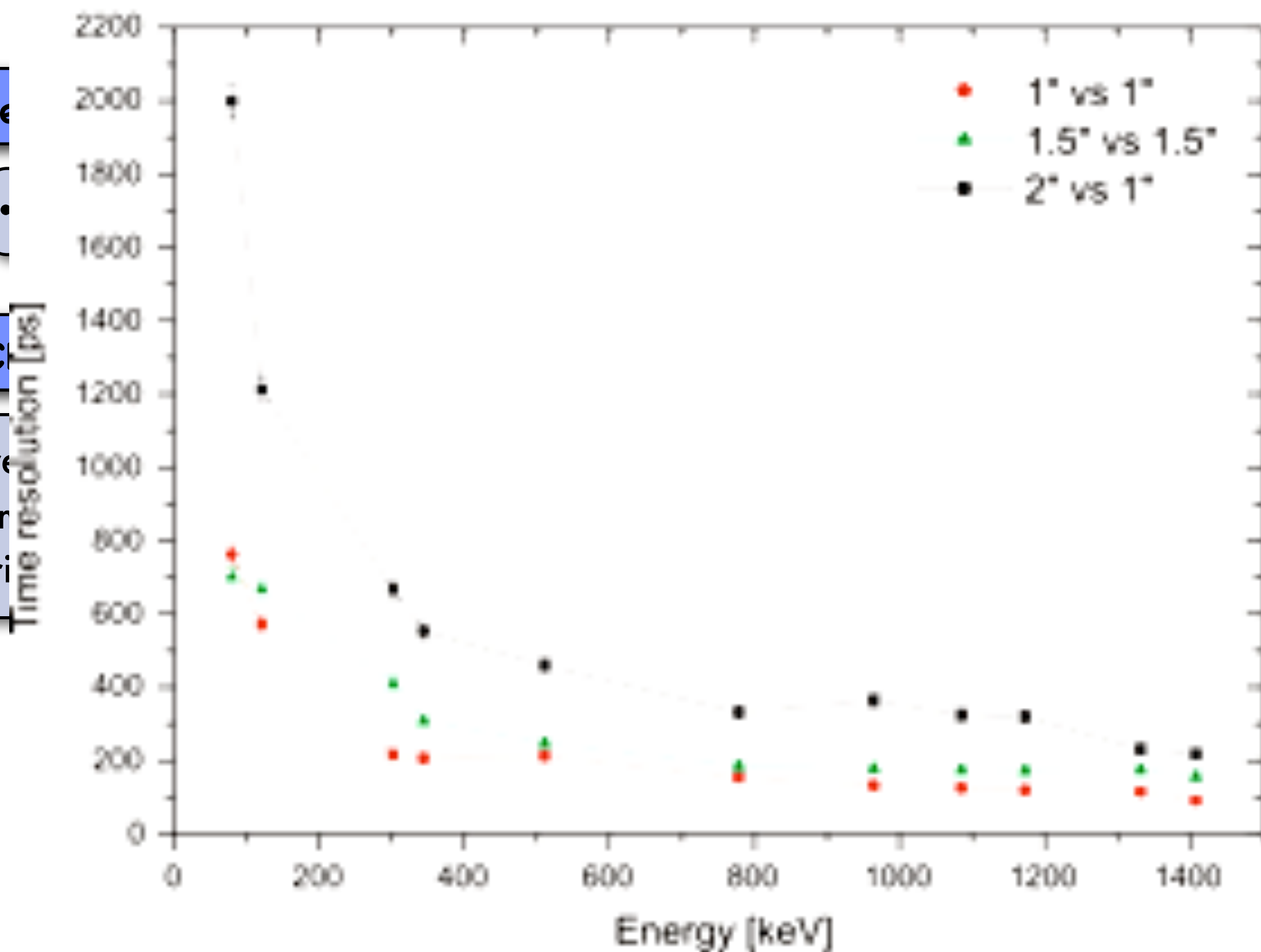
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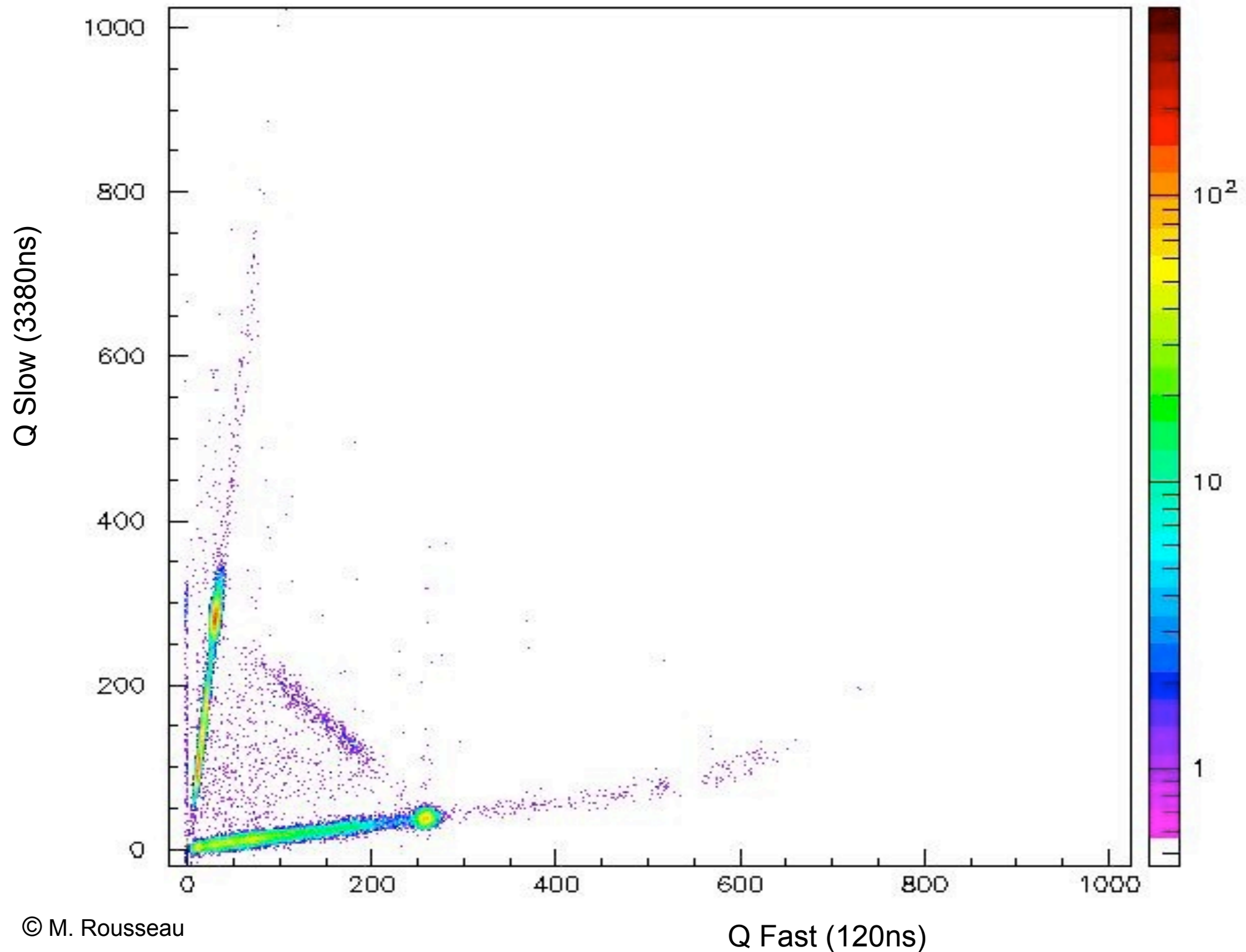
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Special thanks for all WG members for the work done and the fruitful discussion