

Readout Electronics for the Belle II Imaging Time-Of-Propagation Detector

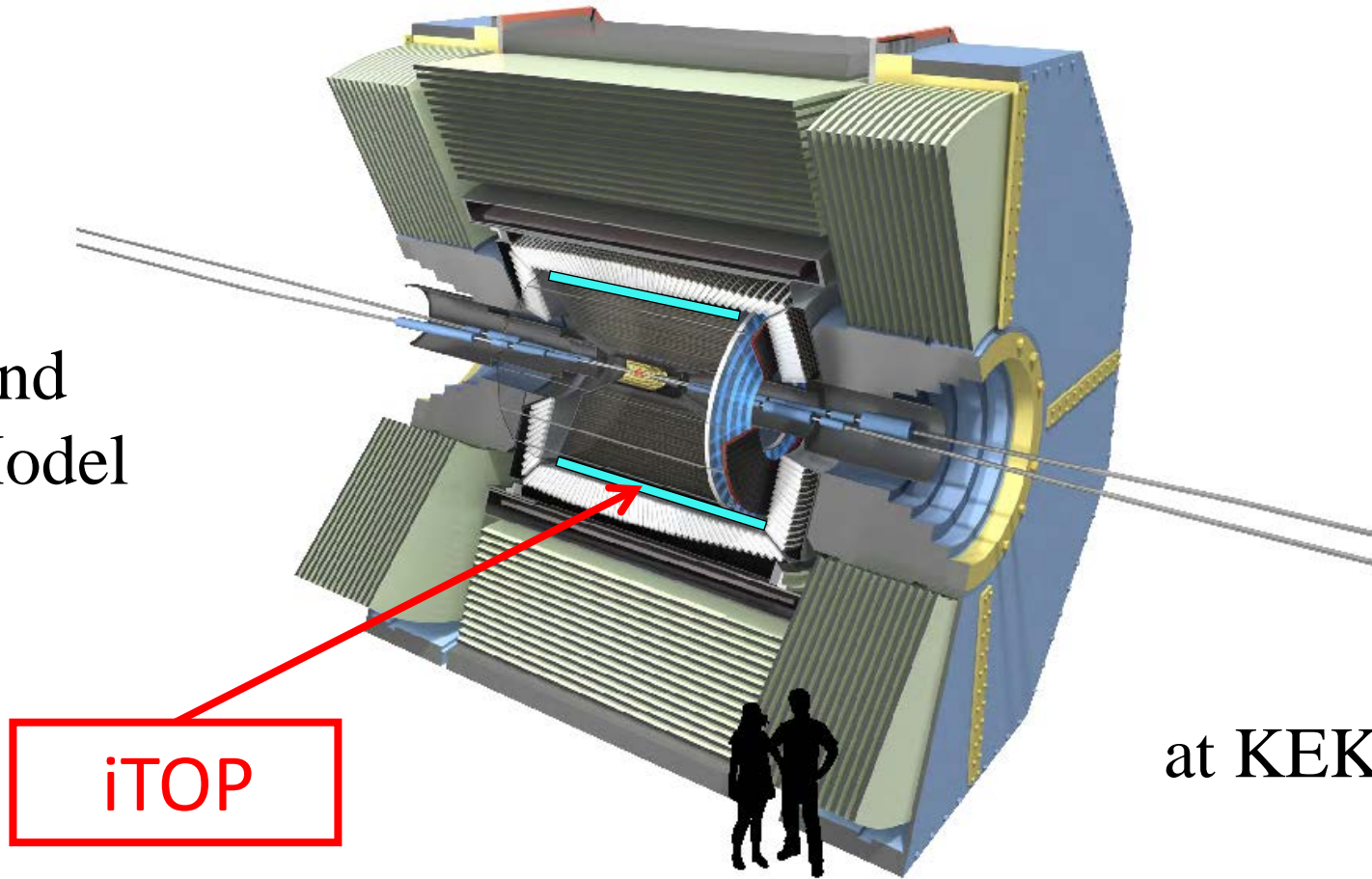
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Steven Covin, Shawn Dubey, Christopher Ketter, Luca Macchiarulo, Curtis McLellan,
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Flavor physics

Search for processes beyond the Standard Model



Collisions:
e+ (4 GeV)
e- (7 GeV)
 $8 \times 10^{35} \text{ cm}^{-2}\text{s}^{-1}$

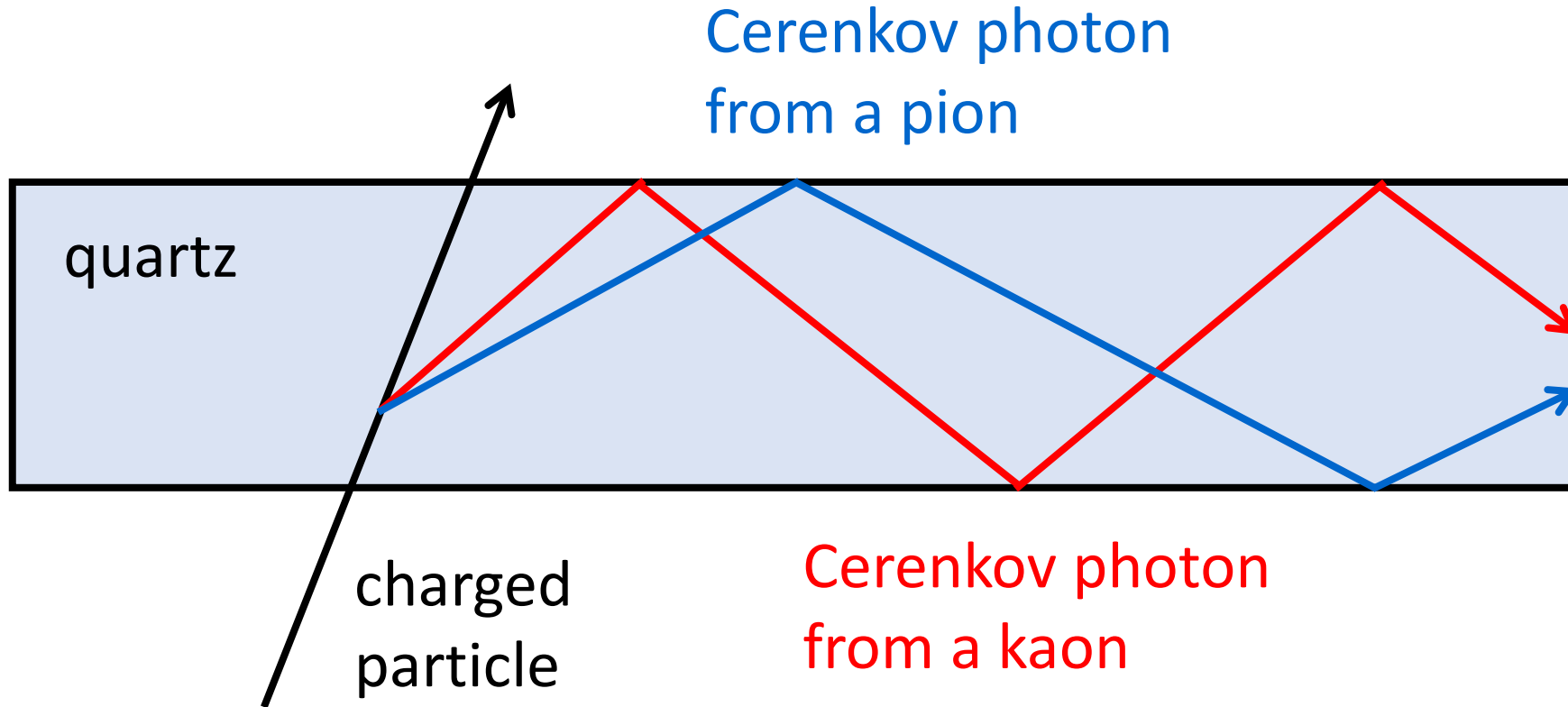
at KEK, Tsukuba, Japan

Barrel

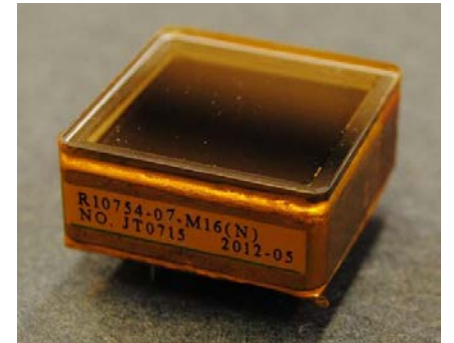
16 quartz staves

8192 readout channels

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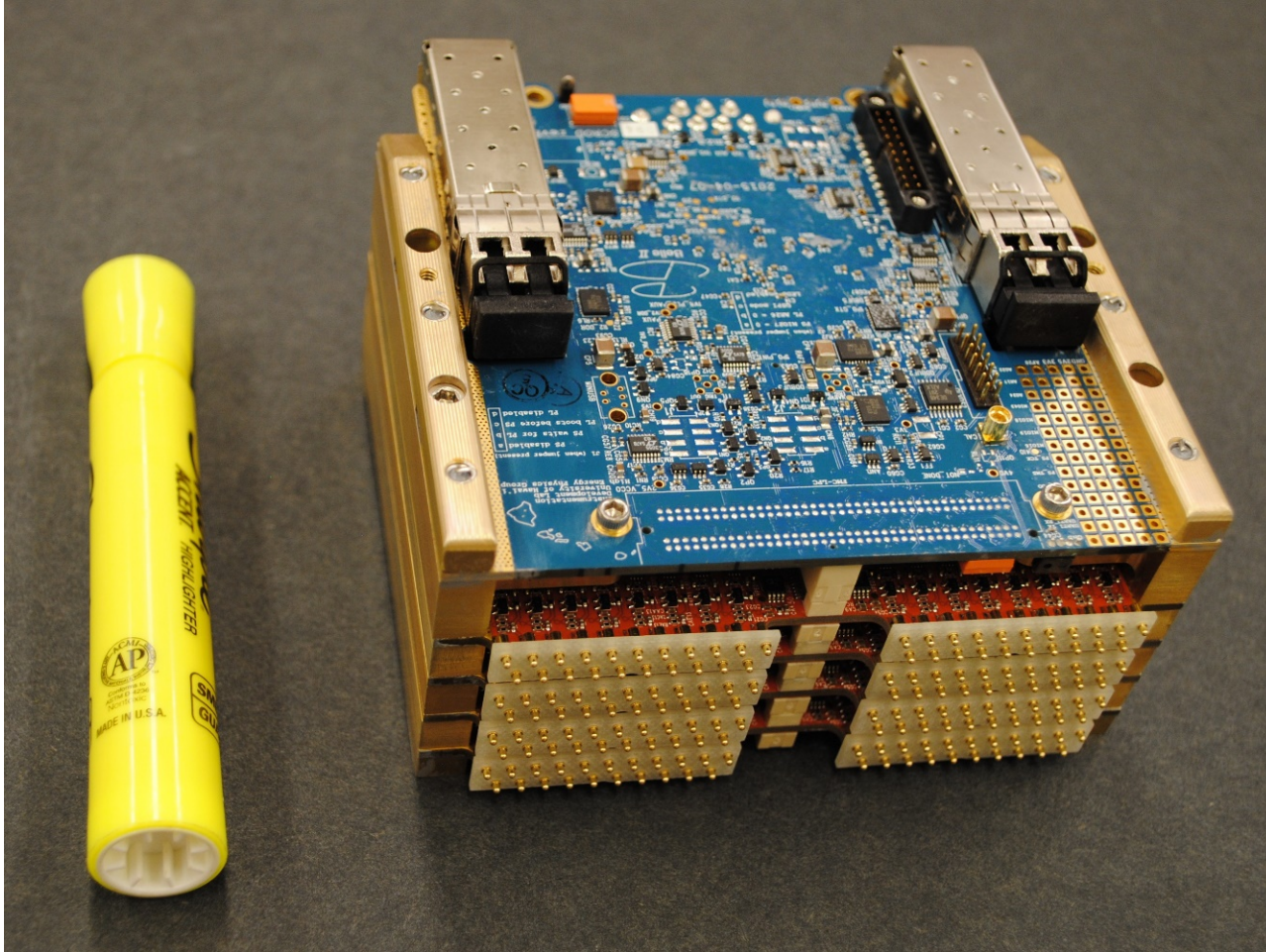
4 x 4 MCP-PMTs:



3-D reconstruction:

2 position coordinates + time

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Subdetector Readout Module

128 channels

Serves 8 MCP-PMTs

Total of 64 modules

ASICs: switched capacitor
arrays + Wilkinson ADCs

SoCs: Xilinx Zynq-7000