

**EP/DT Coordination Meeting
CERN
28th November 2018**

Overview of DT – LHCb RICH (and TORCH) activities

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Main activities

- Current LHCb-RICH maintenance and operation
 - Follow-up of HPD reprocessing
 - Last HPD reprocessing campaign completed in November 2017
 - Replacement of vacuum-degraded HPDs
 - Last maintenance performed in February 2018
 - Punctual interventions (eg HV, L0, LV, cooling)
 - (E)YETS activities
- Support for and follow-up of forthcoming (partial) dismantling of RICHes
 - In particular HPD planes and related aspects

Main activities (cont'd 1)

- LHCb-RICH upgrade
 - Support for and follow-up of laboratory activities, MaPMT system tests and development
 - Including related laboratory space renovation and management
 - Support of beam test activities
 - Last beam test campaign successfully completed in October 2018
 - Support for and follow-up of commissioning and installation activities
 - Including commissioning, storage and installation of MaPMT columns

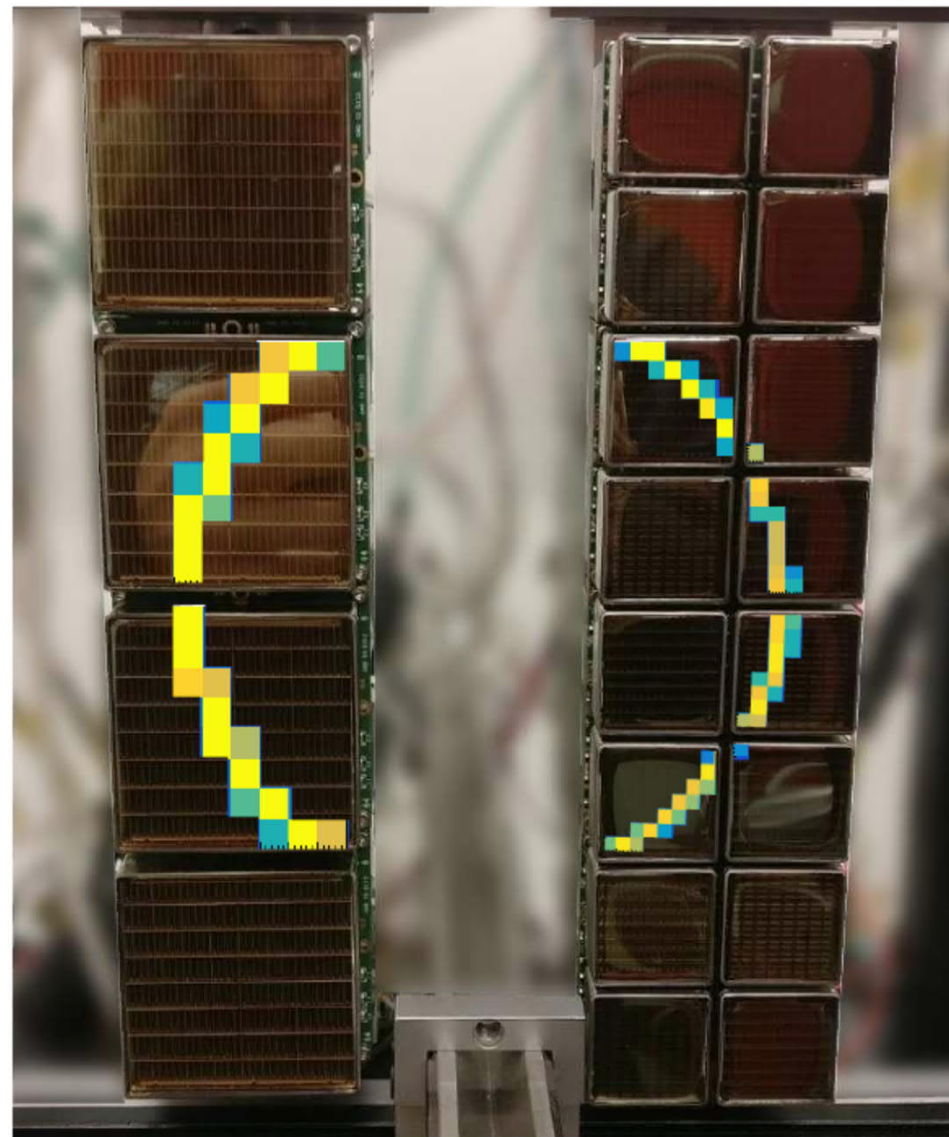
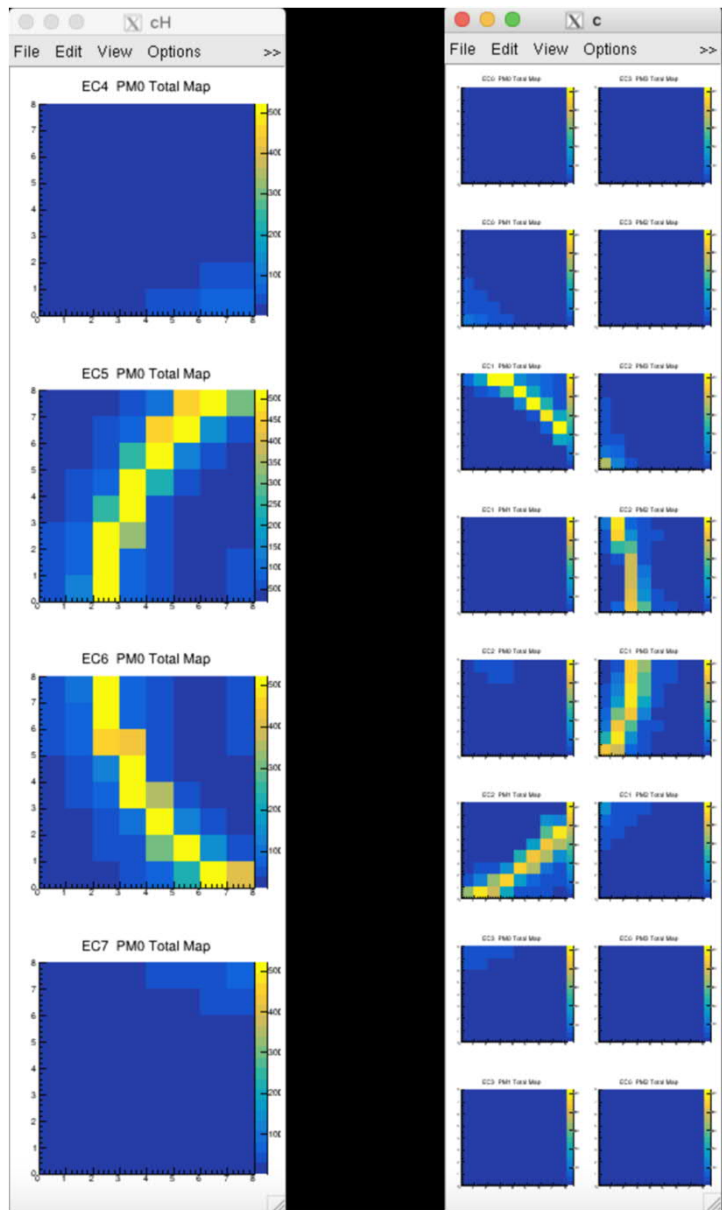
Main activities (cont'd 2)

- TORCH
 - Support for and follow-up of laboratory activities
 - Organization, management and support of beam test activities
 - Last two beam test campaigns successfully completed in June (mini-TORCH) & October/November (proto-TORCH) 2018
 - Organization and management of regular TORCH internal meetings

DT personnel and infrastructure involved

- DT personnel
 - 1 senior applied physicist (TG)
 - 1 technician (DP)
- DT infrastructure
 - Laboratory space:
 - B 16
 - B 17
 - B 153
 - B 169
 - Workshop
 - B 162

LHCb-RICH upgrade Nov. '18 beam tests – Cherenkov ring from a radiator lens detected with MaPMTs



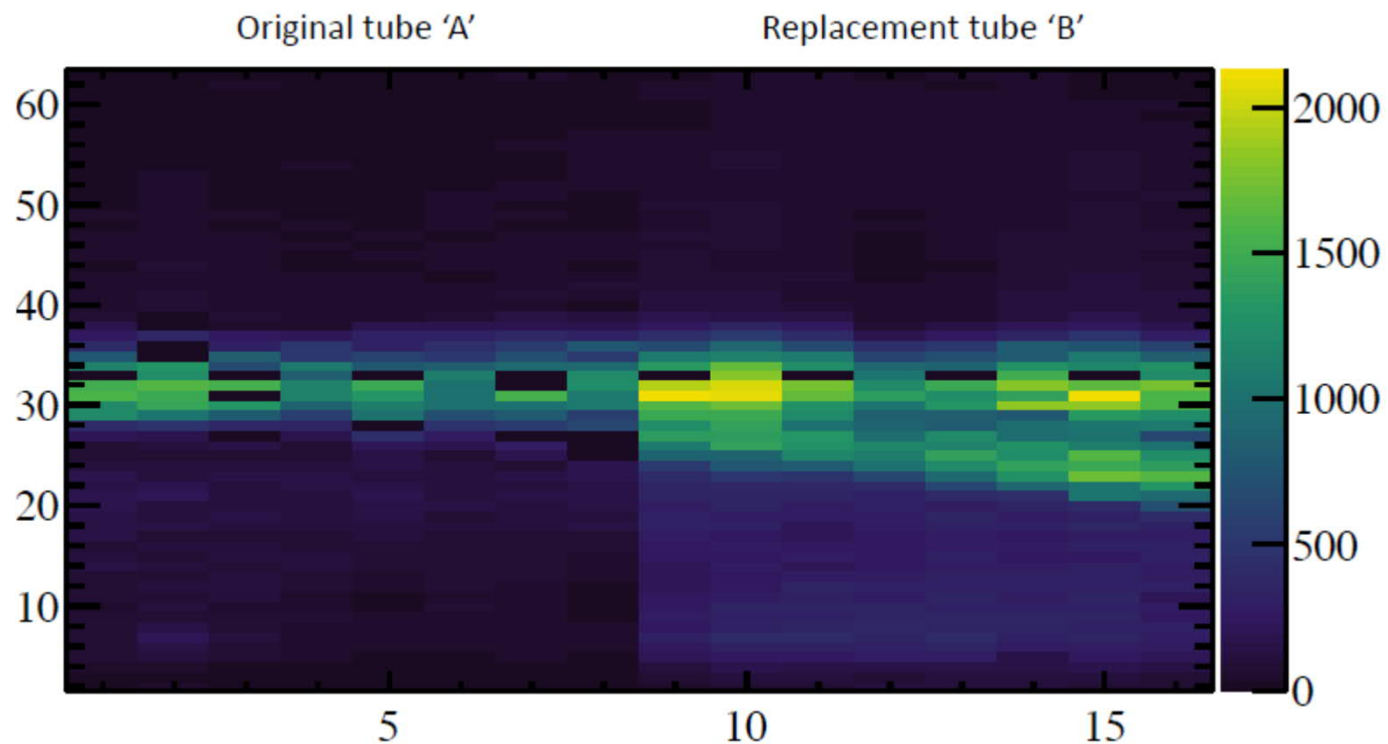
<https://indico.cern.ch/event/774892/contributions/3220418/attachments/1756990/2848983/RICHupgradeTB18.pdf>

TORCH beam tests – (new) infrastructure and TORCH patterns

Installation of proto-TORCH (full-scale radiator module) in PS/T9



TORCH patterns from full module detected with 2 MCP-PMTs



https://indico.cern.ch/event/714247/contributions/2934857/subcontributions/251790/attachments/1749167/2833409/Testbeam_summary_081118.pdf