Commissioning of OTR and CTR diagnostics during 2-week proton run from 19 September 2016

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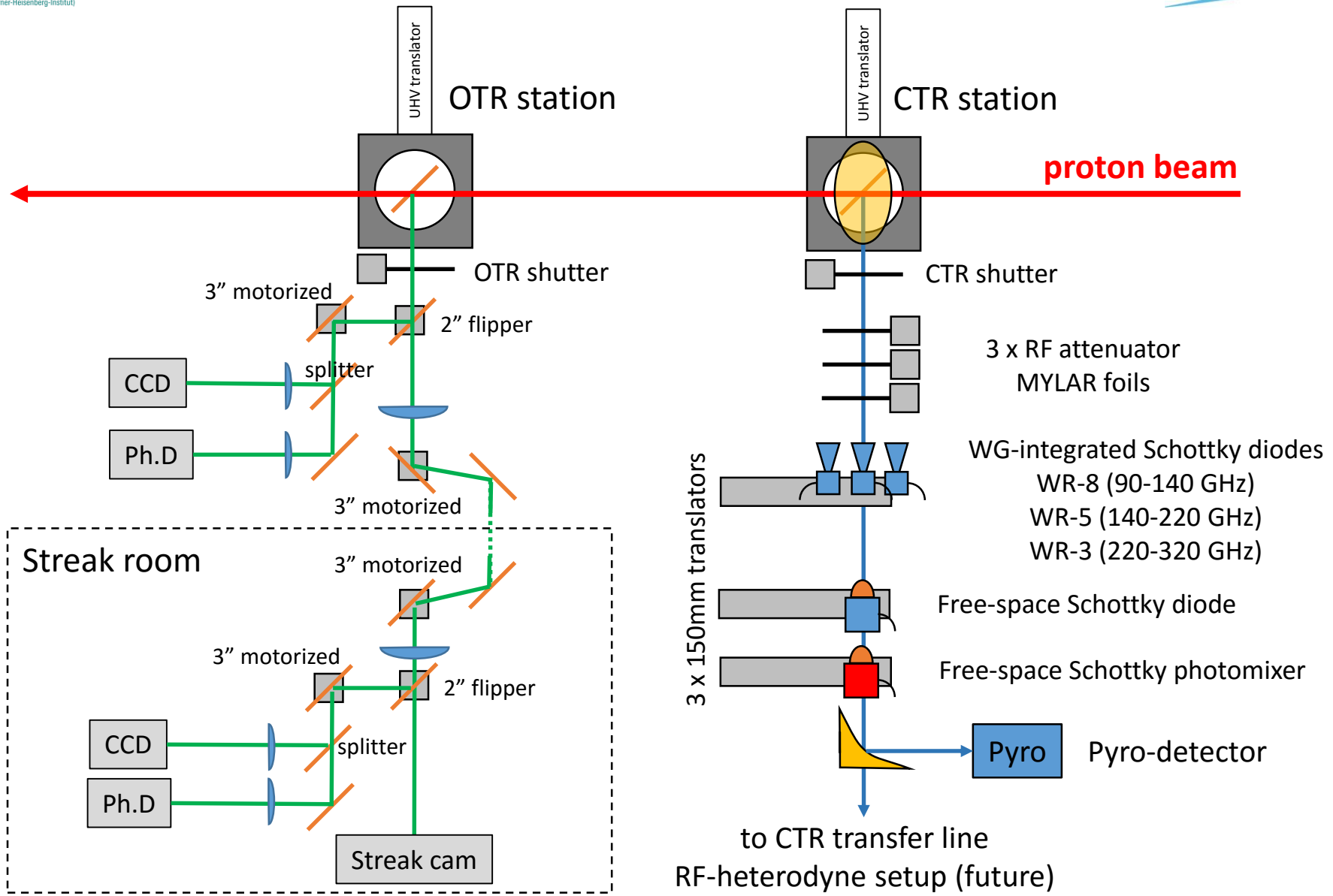
Current CTR-OTR layout



Today's status

What have been done:

- All optical lines are align with an accuracy of reference HeNe laser
- Two fine triggers (thx Heiko) available in the StreakRoom
- Thanks to StreakCam trigger adjustment, streak of TiSa laser obtained
- STANDA motorization installed and working
- BI motorization installed and working (with minor difficulties)
- BE-CO triggers tested in dummy mode, new arrangement of 8 triggers requested

What have to be done:

- Set up a proper delay of BE-CO triggers (as soon as they are ready)
- Understand how to switch triggers (Heiko's and BE-CO) between "10 Hz" and "AWAKE extraction" modes
- Alignment of optical lines according to a proper p+ trajectory coincided with TiSa laser
- WorkingSet knobs for BI mortorization and StreakCam control
- WorkingSet knobs for BE-CO triggers
- Installation of fast oscilloscope (coming from Munich not earlier than September 20)
- OASIS still does not work (we have 6 channels there), set up BE-CO triggers for OASIS

CTR-OTR commissioning

Optical lines realignment according to a new TiSa laser direction (overlapped with a new p+ trajectory) must be done before CTR-OTR commissioning

CTR:

all measurements have to be done on MPP fast scope (coming after September 20) or / and OASIS (currently does not work)

- To play with RF attenuators to have a reasonable signal (maybe none of them are needed)
- To see a noise signal from WG-integrated Schottky diodes
- To see a noise signal from free-space Schottky diode
- To see a noise signal from free-space Schottky photomixer
- To see a noise signal from pyro-detector

OTR:

- To see OTR image on both CCD's
- To see OTR pulse on both PhotoDiodes (OASIS or MPP fast scope)
- To see OTR image on StreakCam in focused mode
- To see OTR image on StreakCam in streak mode, measure p+ bunch length