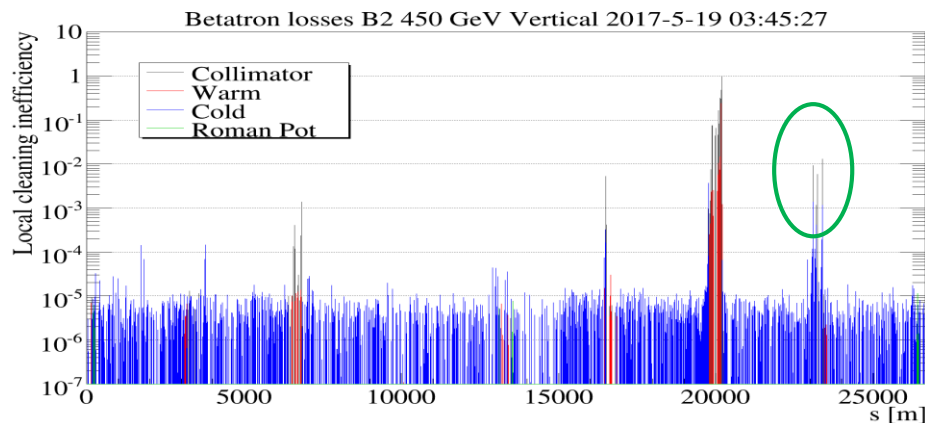


Beam 2 loss maps at injection after TS1

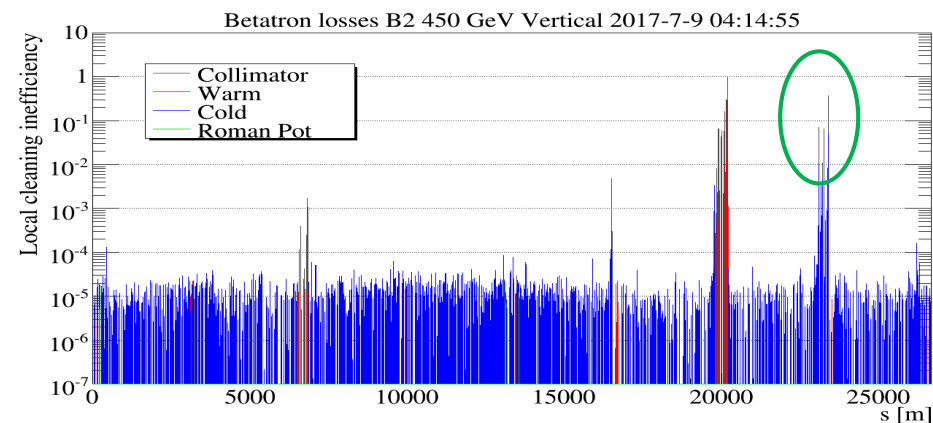
D. Mirarchi, C. Bracco, R. Bruce, A. Mereghetti

- Validation **loss maps** after **TS1** shown much higher **losses** on **TDI.4R8** w.r.t. commissioning (factor ~ 40)

Commissioning 2017

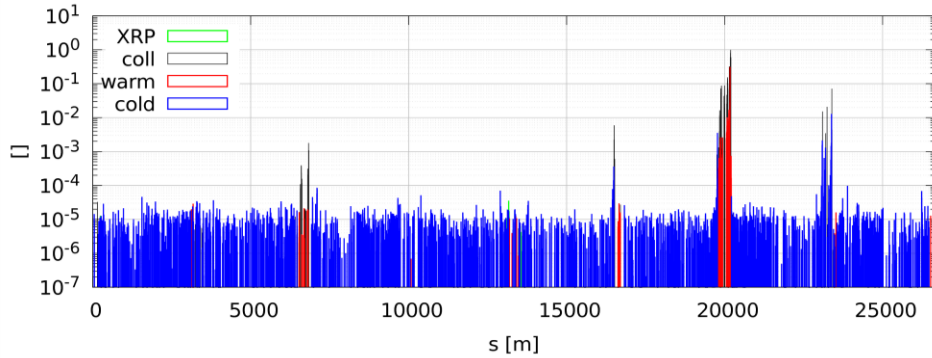


TS1 2017



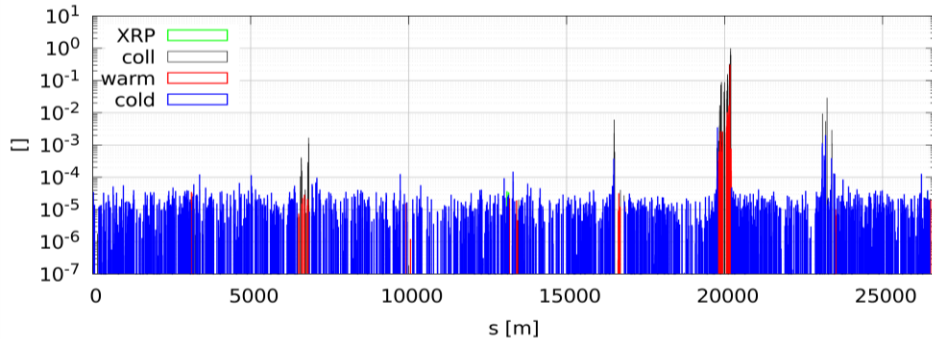
- Investigations performed** to understand the source of such increased losses:
 - ✓ Checked **TDI alignment** Within 100 μm , i.e. $1/6 \sigma$
 - ✓ **Loss maps** B2V with nominal settings and single jaw

Loss Map - background subtracted - normalised to value at TCHSV.6R7.B2
B2V - 2017-07-10 16:51:22



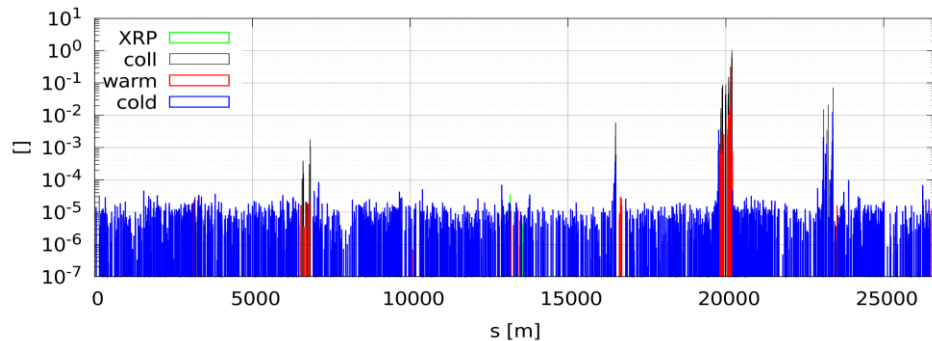
Nominal settings

Loss Map - background subtracted - normalised to value at TCHSV.6R7.B2
B2V - 2017-07-10 16:48:25



Right jaw only

Loss Map - background subtracted - normalised to value at TCHSV.6R7.B2
B2V - 2017-07-10 16:51:22



Left jaw only



Conclusion



- **Alignment** of **TDI.4R8 good** also after TS1
- **Main losses** are on **left jaw**
 - ✓ Might be due to the **phase advance** between the **TCP** jaw cutting the beam at first and the **TDI** left jaw
- **Loss maps** repeated with same **nominal settings**: beam loss pattern in **agreement** w.r.t. **commissioning**
- **Main hypothesis** to explain larger losses during first TS1 re-validation loss maps:
 - ✓ **Not optimal steering** of the transfer line (YASP closed by accident and not realized by the OP crew)