Planning for the 2021 run

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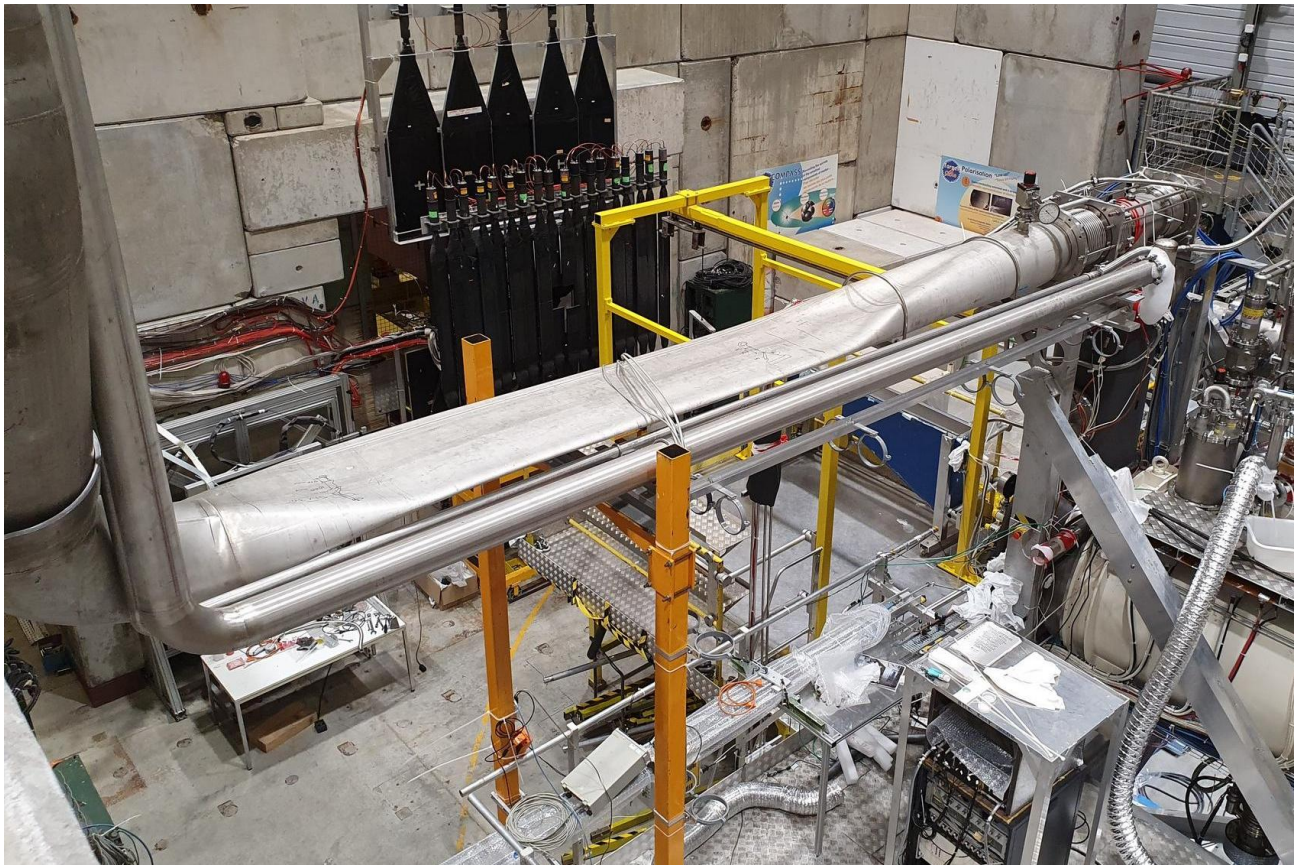
Joint COMPASS–AMBER Technical board meeting

CHARLES UNIVERSITY
Faculty of mathematics
and physics

Accident on Saturday 3. 7.



- The main pumping line of the dilution cryostat has collapsed.
  - Pressure ≈ 10 mbar inside. The thickness (2 mm) probably lacked a safety margin.
  - Target material has been unloaded and safely stored.
- The line is under Cryogroup responsibility. Very quick reaction.
  - The demaged pipe has been removed and a new one welded last week.
  - Installation planned this Thursday (the cryostat needs to warm up).
  - Nevertheless, 3–4 weeks from the accident to the pre-accident state (cryogenics...)

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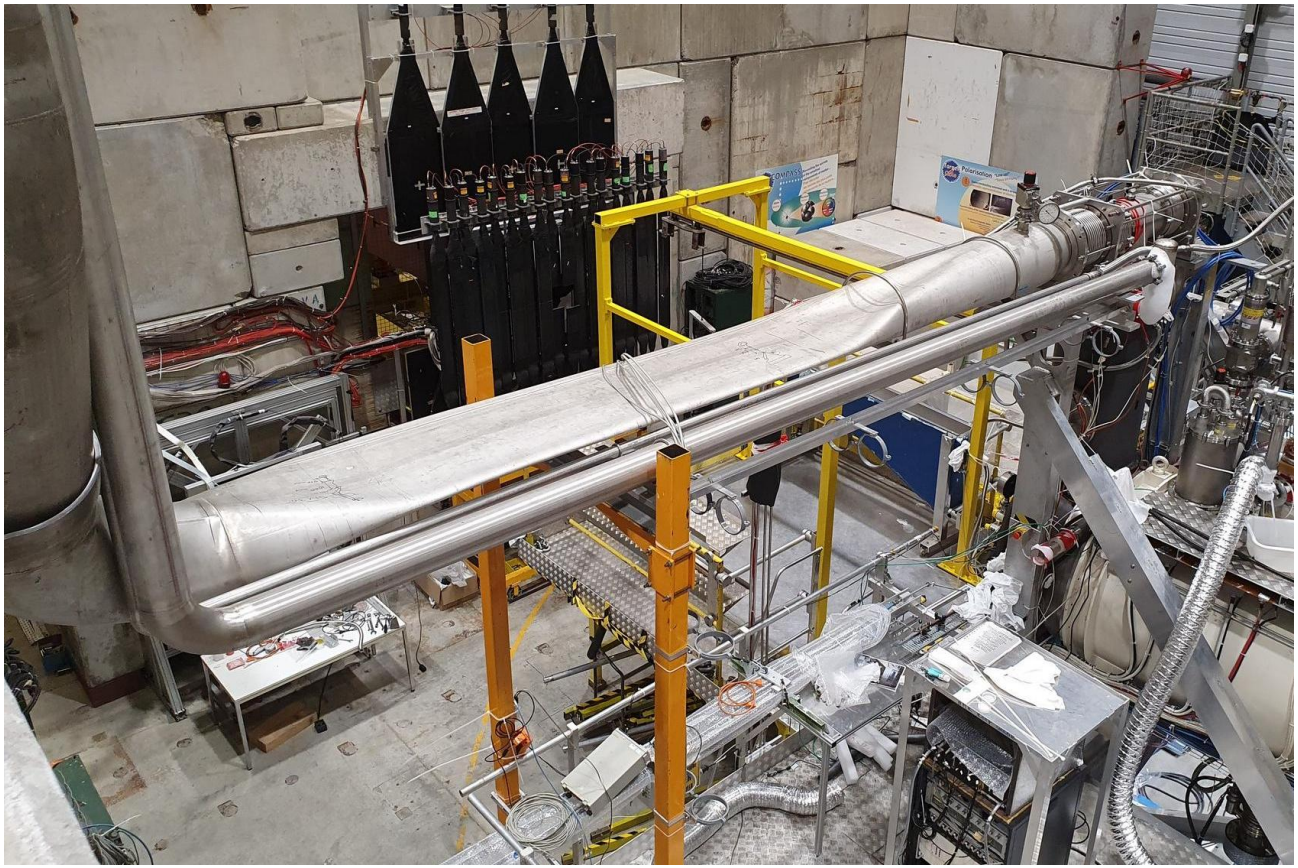

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Spectrometer commissioning status

SourceID	Type	v BadEvents
642	Silicon	100,0%
641	Silicon	100,0%
640	Silicon	100,0%
621	ECAL	100,0%
620	ECAL	100,0%
616	ECAL	100,0%
482	MW1	100,0%
480	MW1	100,0%
460	MWPC	100,0%
454	MWPC	100,0%
453	MWPC	100,0%
451	MWPC	100,0%
432	RW	100,0%
260	DC	100,0%
110	TriggerADC	100,0%
84	ifTDC	100,0%
156	SciFi-D	6,7%
158	SciFi-D	5,3%
627	ECAL	1,9%
79	Veto	1,1%
74	Trigger	1,1%
68	Trigger	1,1%
65	Trigger	1,1%
129	SciFi15	1,0%
452	MWPC	0,1%

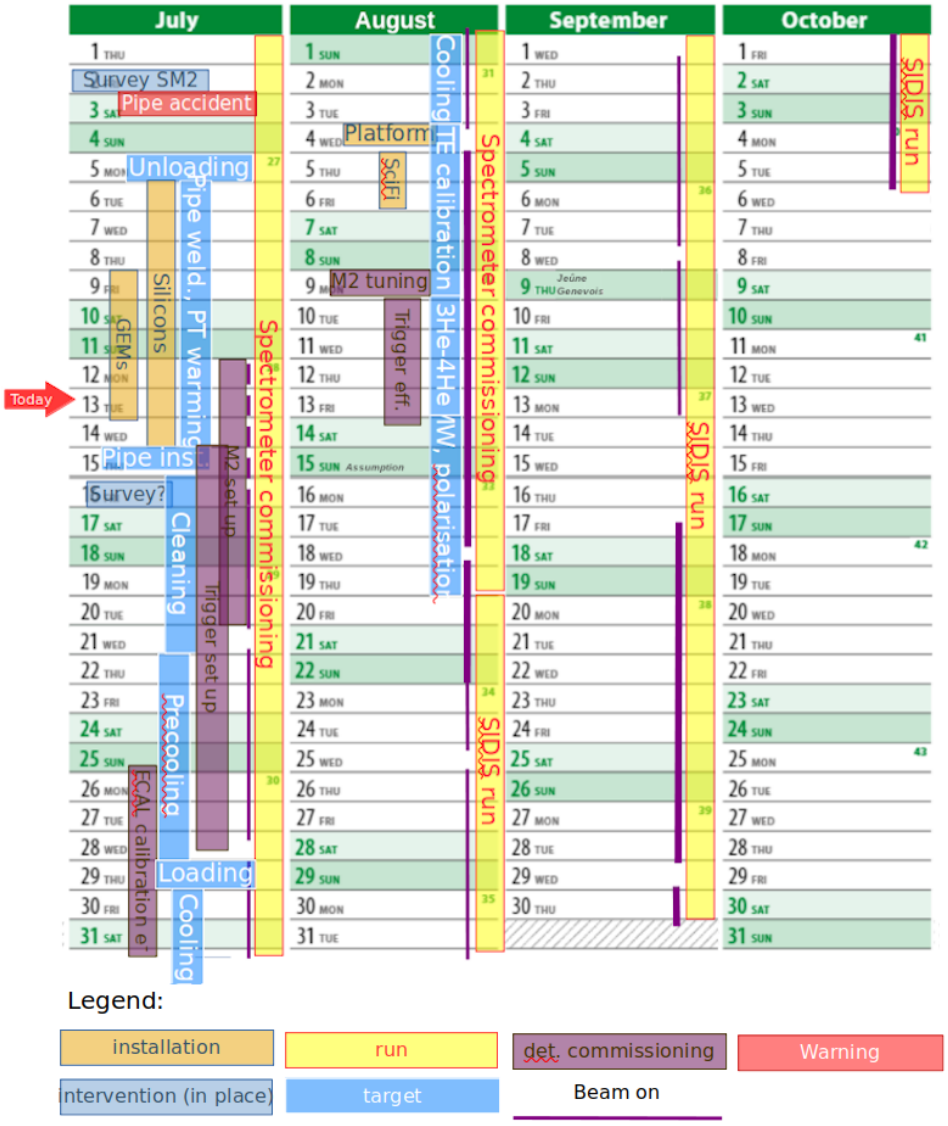
MurphyTV this afternoon.

H1 hodoscope.

Silicons with LN_2 cooling.

- All detectors mounted, except SI, FI15 and FI02.
- Silicons mounted next to the target loading platform to test the refurbished LN_2 cooling.
- All detectors with nominal gas, except RICH.
- Readout is set up in almost all detectors.
- HV on in almost all detectors.
- First beam delivered this week.
  - M2 beamline setup.
  - First trigger timing.

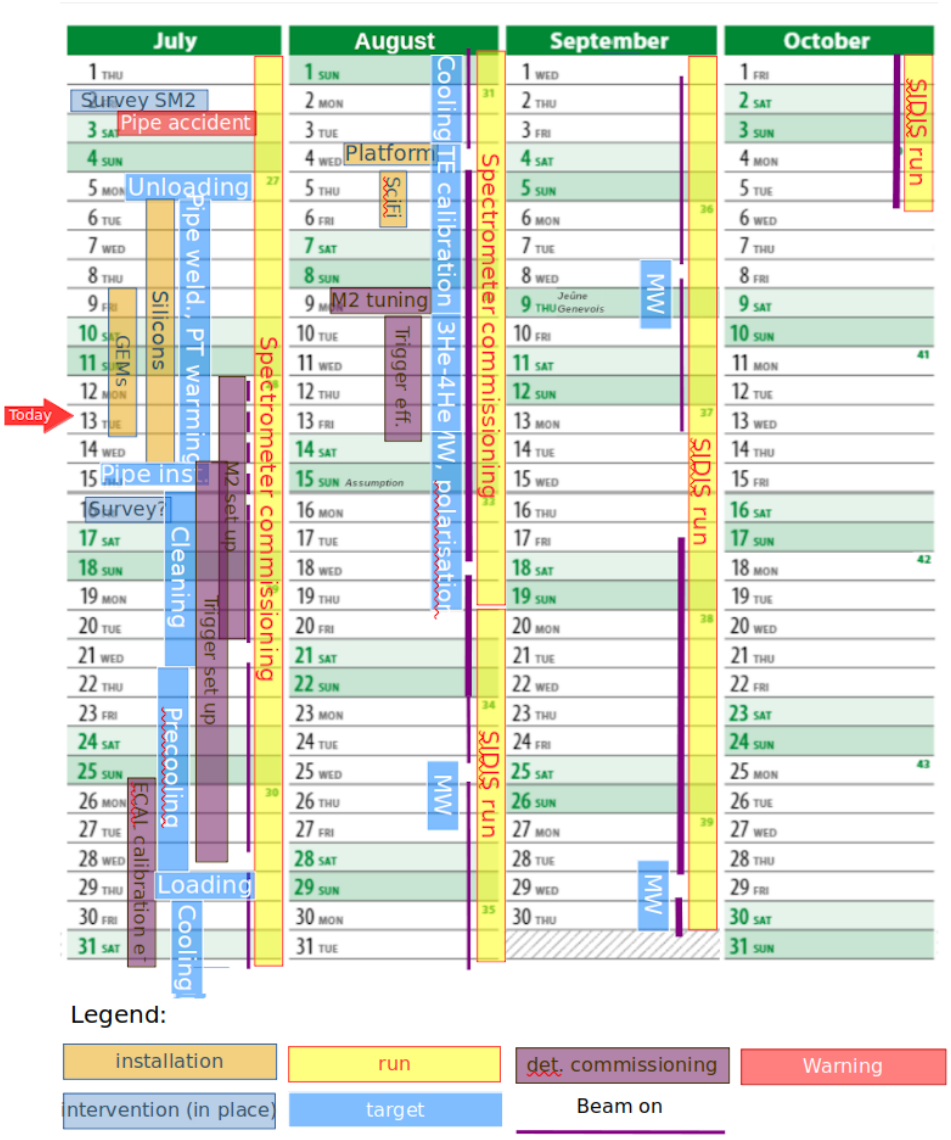
Spectrometer commissioning plans



Current plan (constanly updating).
The target schedule may change.

- This week
  - Finish Silicon and GEM installation.
  - Finish debugging of front-end electronics.
  - M2 beamline setup.
  - Setting up triggers.
- Week 29 (from 19. 7.)
  - Setting up triggers.
  - Detector commissioning with beam.
- Week 30 (from 26. 7.)
  - First alignment.
  - Finalisation of the spectrometer commissioning.
  - ECAL calibration with e^- beam.
  - Specrometer fully ready by 31. 7.
- Later
  - Trigger efficiency measurements.
  - Unpolarised SIDIS.
- Polarised target
  - Has to warm up and cool down.
  - Schedule was already tight after the vacuum problem.
  - Experts doing the best...
  - Rough estimate: mid-August (2–3 weeks delay).

Data taking plans



Current plan (constanly updating).
The target schedule may change.

- Three periods, about 2 weeks each.
- Polarization rate (estimate by Michael): about 40 % in 24 h and 45 % in 48 h.
- The optimal time spend polarizing is yet to be decided.