Linac4 report

Week 9

FR for the L4 team

(next week LINAC supervisor : Giulia Bellodi)
Availability 98.2%  
Monday to Monday

**Faults by Root Cause**

- **Power Converters**: 0
- **Magnets**: 1
- **Other**: 1
- **Source**: 2
- **Radio Frequency**: 4

**Fault Duration (overlap excluded)**: 3.1h

**Facilities Operations Meeting**

- **08.03.2022**
Events

- **Wed 02-Mar (~20min):** MEBT sector valves closed (exit of RFQ \(\rightarrow\) DTL1 entrance)
  - Correlation among valves closure, vacuum spike and chopper off,
  - Not clear what caused what. Very rare event, possibly happened once xx years ago

- **Fri 04-Mar (~60min):** assessment of the source 2MHz RF amplifier saturation level (required LEBT beam stopper IN \(\rightarrow\) no beam in the LINAC)
  - RF tube amplifier gain to be re-adjusted few times in the last 2 weeks.
  - Plan/proposal
    - Monitor/re-assess the situation for the next 1-2 weeks. It takes form 5 to 30 min, propose to do it on Fri mornings
    - If degradation continues: plan the tube replacement as soon as time slot agreed (it takes 3-4 hours)

- **Sat 06-Mar (~90min):** DTL1 fault
  - 2 x over – voltage. RF Piquet checks needed before second (successful) re-start.

N.B.: Source delivered and is delivering requested \(\geq\)35mA, flat pulse