Contribution ID: **345** Contribution code: **TUPB020** Type: **Poster Presentation**

# Surface finishing of additive manufacturing parts for particle accelerators

*Tuesday 27 August 2024 16:00 (2 hours)*

Significant progress towards the suitability of Additive Manufacturing (AM) metal parts for the production of linear accelerator components has been made in recent years. One significant factor for the suitability of AM parts to produce linac rf structures is the surface quality of the parts. Due to the inherently higher surface roughness of AM metal parts, post-processing is necessary to reach surfaces suitable for rf operation. We present most recent results of surface post-processing trials with AM parts from stainless steel.

## Footnotes

## Funding Agency

EU Horizon 2020 Research and Innovation programme: agreement No 101004730.
Development of PEP technology: PNRR MUR project PE0000023-NQSTI.
German BMBF grant number 05P21RFRB2.

**Primary author:** Dr HÄHNEL, Hendrik (Goethe Universität Frankfurt)

**Co-authors:** Dr RATKUS, Andris (Riga Technical University); DEDIC, Benjamin (Goethe Universität Frankfurt); PIRA, Cristian (Istituto Nazionale di Fisica Nucleare); CHYHYRYNETS, Eduard (Università degli Studi di Padova); POZZI, Matteo (Rosler Italian); VEDANI, Maurizio (Politecnico di Milano); VRETENAR, Maurizio (European Organization for Nuclear Research); KUNKEL, Natalie (Technische Hochschule Mittelhessen); CAFORIO, Roberta (Istituto Nazionale di Fisica Nucleare); Mr ROMANO, Tobia (Riga Technical University); Prof. TORIMS, Toms (European Organization for Nuclear Research)

**Presenter:** Dr HÄHNEL, Hendrik (Goethe Universität Frankfurt)

**Session Classification:** Tuesday Poster Session

**Track Classification:** MC3: Proton and Ion Accelerators and Applications: MC3.6 Room temperature structures