



Contribution ID: 1589 Contribution code: THPS70

Type: **Poster Presentation**

## 3D printed beam correctors

*Thursday, 23 May 2024 16:00 (2 hours)*

Starting from 2018 we have designed and created 3D printed beam correctors using two different types of FDM materials, Ultem and ASA. The design was defined based on the ergonomics of the existing machine parts, avoiding radial and longitudinal mechanical interference, and the magnetic performances to be produced. The size and configuration of the resulting windings influenced the choice of the most suitable FDM material for the purpose. In total we present 3 different prototype models which, in addition to demonstrating the ability to produce the design performances, are currently used on the SPARC-Lab Experiment in our INFN National Laboratories in Frascati.

### Footnotes

### Funding Agency

### Paper preparation format

Word

### Region represented

Europe

**Primary author:** DEL FRANCO, Mario (Istituto Nazionale di Fisica Nucleare)

**Co-authors:** VANNOZZI, Alessandro (Istituto Nazionale di Fisica Nucleare); SABBATINI, Lucia (Istituto Nazionale di Fisica Nucleare)

**Presenter:** DEL FRANCO, Mario (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Thursday Poster Session

**Track Classification:** MC7: Accelerator Technology and Sustainability: MC7.T38 Mechanical design