



Contribution ID: 49

Type: poster

## Initial Design of a High-Power Ka-Band Klystron

*Wednesday, September 18, 2019 7:00 PM (1 hour)*

High-gradient high-frequency accelerating structures are in strong demand for the next generation of compact light sources. Accelerating structures operating in Ka-Band are foreseen to achieve gradients around 150 MV/m. Among possible applications of a Ka-Band accelerating structure we refer to the beam phase-space manipulation for the Compact Light XLS project as well and medical and industrial applications. In this paper, a Ka-Band Klystron amplifier is being investigated in order to feed Ka-Band accelerating structures. The initial design is presented including the high-power DC gun and the beam focusing channel.

**Primary authors:** BEHTOUEI, Mostafa (INFN - LNF); FAILLACE, Luigi (MI); SPATARO, Bruno (LNF); VAR-IOLA, Alessandro (LNF); FERRARIO, Massimo (LNF)

**Presenters:** BEHTOUEI, Mostafa (INFN - LNF); FAILLACE, Luigi (MI)

**Session Classification:** Cheese and Wine Poster Session 2

**Track Classification:** WG3 - Electron beams from electromagnetic structures, including dielectric and laser-driven structures