Contribution ID: **215** Type: **Talk: in-person**

# High-Power Targetry for Muon Production

*Tuesday, 17 September 2024 16:55 (20 minutes)*

The production of high-intensity muon beams is crucial for advancing particle and accelerator physics, both now and in the future. Achieving these high-intensity goals requires overcoming significant challenges in high-power targetry. This talk will address these challenges and present innovative solutions currently under investigation. We will explore the selection of target materials, focusing on their thermal and mechanical properties, as well as their resistance to radiation damage—key factors for enduring the intense energy deposition from high-power proton beams. The presentation will also showcase recent advancements in target design, including novel cooling techniques and material innovations that enhance durability and efficiency. The talk will conclude by outlining future directions, highlighting the potential of emerging materials and designs to improve muon yield and extend target longevity.

## Working Group

WG 3: Accelerator Physics

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**Session Classification:** Parallel: WG 3x4

**Track Classification:** WG3: Accelerator Physics