20th Advanced Accelerator Concepts Workshop



Contribution ID: 60 Type: Contributed Oral

Low-emittance high-energy muon source based on plasma wakefield acceleration

Monday, 7 November 2022 13:30 (20 minutes)

Plasma wakefield acceleration (PWA) channels are characterized by very high accelerating gradients and very strong focusing fields. We propose to employ these properties for effective production of low emittance high energy muon beams, consider muon beam dynamics in the PWFA cell and analyze various options and potential of the PWA-based muon sources.

Acknowledgments

Primary author: SHILTSEV, Vladimir (Fermilab)

Presenter: SHILTSEV, Vladimir (Fermilab)

Session Classification: WG5: Beam Sources, Monitoring, and Control

Track Classification: Working Group Parallel Sessions: WG5 Oral: Beam Sources, Monitoring, and

Control