Evaluation of a compact electron preinjector using a low beta acceptance X-band accelerating structure

Tuesday, 9 May 2023 16:30 (2 hours)

At the University of Melbourne X-LAB we are investigating the use of a low \( \beta \) acceptance X-band accelerating structure as part of the design of an all X-band RF electron preinjector optimised for the production of low emittance electron bunches for medical physics applications and compact light source development.

In this work we will elaborate on the estimated performance, design issues, and optimisation methodology of the preinjector beamline.

Funding Agency

Footnotes

I have read and accept the Privacy Policy Statement

Yes

Primary authors: WILLIAMS, Scott (The University of Melbourne); DOWD, Rohan (Australian Synchrotron - ANSTO); RASSOOL, Roger (The University of Melbourne); SHEEHY, Suzanne (Australian Nuclear Science and Technology Organisation); TAYLOR, Geoffrey (The University of Melbourne); VOLPI, Matteo (The University of Melbourne)

Presenter: WILLIAMS, Scott (The University of Melbourne)

Session Classification: Tuesday Poster Session

Track Classification: MC2: Photon Sources and Electron Accelerators: MC2.A08: Linear Accelerators