4th European Advanced Accelerator Concepts Workshop



Contribution ID: 184 Type: talk

Electron Beam Driven Wakefield Generation at the AWA Facility

Wednesday, 18 September 2019 16:00 (20 minutes)

Electron beam driven wakefield acceleration has been the main focus of research at AWA for many years, using high charge electron bunches (1 to 100 nC) for both Structure Wakefield Acceleration (SWFA) and Plasma Wakefield Acceleration (PWFA). We will present recent experimental results obtained with several types of X-band structures: metallic, dielectric loaded, photonic band gap (PBG), and metamaterial (MTM). RF pulses of a few hundred MW have been generated.

Primary authors: CONDE, Manoel (Argonne National Laboratory); ANTIPOV, Sergey (CERN); DORAN, D.Scott (Argonne National Laboratory); HA, Gwanghui (Argonne National Laboratory); JING, Chunguang (Euclid Techlabs / ANL); LIU, Wanming (Argonne National Laboratory); PENG, Maomao (Tsinghua University); POWER, John G.; ROUSSEL, Ryan (University of California Los Angeles); SEOK, Jimin (Ulsan National Institute of Science and Technology); SHAO, Jiahang (Argonne National Laboratory); WHITEFORD, Charles (Argonne National Laboratory); WISNIEWSKI, Eric (Illinois Institute of Technology)

Presenter: CONDE, Manoel (Argonne National Laboratory)

Session Classification: WG3 - Dielectric Beam-driven Acceleration Thz acceleration

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