

AAC24 Advanced Accelerator Concepts Workshop

Monday, 22 July 2024

Poster [Atrium]: Poster Session 1 (18:00 - 19:30)

[id] title	presenter	board
[281] Stabilizing numerical electrostatic PIC instabilities for channel expansion simulations	ADAMS, Luke	
[279] Recent developments of a laser-driven ion acceleration beamline at SIOM	Prof. BIN, Jianhui	
[205] Beam position monitor for high intensity environments	AMOUDRY, Loic	
[185] Lifetime of beam-driven wakes at FACET-II (student)	BROOKS, Jason	
[254] Breakdown insensitive acceleration regime in a metamaterial accelerating structure (student)	MERENICH, Dillon	
[251] On-line Source Characterization of Betatron Radiation using a Deep Learning Based X-ray spectrometer	BEIER, Nicholas	
[223] QPAD: Highly efficient quasi-static particle-in-cell algorithm based on azimuthal decomposition	LI, Fei	
[217] Recent progress on GPU enabled OSIRIS	LEE, Roman	
[203] Inter-stage coupling of plasma accelerators	SCHROEDER, Sarah	
[225] Experimental design for coherent synchrotron radiation with shielding	RAMACHANDRAN, Omkar	
[222] Progress Towards Measurement of Shaped Electron Bunch at the Argonne Wakefield Accelerator using Phase Diversity Electro-Optic Sampling	KELHAM, Spencer	
[215] Electro-optic sampling based electron beam measurements	LENZ, Maximilian	
[221] Manipulating Transverse Wakefields With an Alternating Gradient Dielectric Structure	LYNN, Walter	
[211] Status of electron acceleration experiments at the BELLA center	STACKHOUSE, Josh	
[267] Transverse plasma density redistribution in discharge capillaries for plasma acceleration	KANEKAR, Advait	
[268] QED effects in future TeV class laser wakefield accelerators (student))	QIAN, Qian	
[266] Programmable-trajectory ultrafast flying focus pulses (student)	AMBAT, Manfred Virgil	
[265] Finite grid instability and its relationship with aliasing	UDBY, Rebecca	
[264] The PAX Experiment at FACET-II	HESSAMI, Rafi	
[262] Adiabatic plasma lens designs for the final focus of TeV electrons(student)	SU, Qianqian	
[109] Atto-second bunch generation using reversed chicane at Argonne Wakefield Accelerator (AWA)	TEMIZEL OZDEMIR, Buse Naz	
[108] Multiplexed magneto-optic probe of wakefield accelerators	ARAUJO, Timothy	
[105] Tunable plasma waveguide generation with diffractive axicons for laser wakefield acceleration	TRIPATHI, Nishchal	
[102] The ZEUS multi-Petawatt laser system: first results	THOMAS, Alec	
[64] Optical properties and damage thresholds of materials for high-peak-power LWIR laser applications	Dr POGORELSKY, Igor V	

[53] Simulating the transverse probing of laser-driven plasma wakefields using ultrarelativistic electrons	TROMMER, Evan	
[278] Low divergence and high charge multi-GeV acceleration of electrons with a < 300 TW laser	ROCKAFELLOW, Ela	
[277] Development of 100mJ coherently combined CPSA fiber laser laboratory demonstrator for driving particle acceleration and secondary radiation experiments (Student Poster)	PASQUALE, Christopher	
[269] Progress Toward Experiments on an Integrated 10-MeV X-band Photoinjector Powered by a Two-Beam Acceleration Technique (student)	FRAME, Emily	
[270] Measurement of CSR-affected beams using generative phase space reconstruction (student)	GONZALEZ-AGUILERA, Juan Pablo	
[271] Ionization Front Acceleration revisited: collective GeV-scale acceleration of high-charge ion bunches by high-current electron beams	CHEN, Jiyuan	
[272] Loss-free shaping of few-cycle terawatt pulses at 1 kHz for laser wakefield acceleration (student)	LE, Manh	
[273] Conditions of Simultaneous Retention of a Self-injected Bunch in the Phase of the Maximum Accelerating Wakefield and Greatest Bunch Stability in LPA with an Optimal Longitudinal Profile of Plasma Density	MASLOV, Vasyi	
[274] Hose Instability Suppression by Bunch Anharmonic Radial Oscillations in Plasma Wakefield Accelerator in Weakly Nonlinear and Blowout Regimes	Prof. MASLOV, Vasyi	
[75] Updates to Xopt for online accelerator optimization and control	ROUSSEL, Ryan	
[37] EuPRAXIA@SPARC_LAB – Overview on Beam Diagnostics	VERRA, Livio	
[96] Optimization of filamentation compression of CPA laser pulses using machine-learning techniques	MURPHY, Jon	
[58] Generation of an attosecond beam using Beam-Induced Ionization Injection in PWFAs	YAN, Jiayang	
[56] Multiple-drive-bunch plasma wakefield acceleration	VERRA, Livio	
[97] Optical pump generation for long-wave infrared drivers for wakefield accelerators	LI, William	
[93] Most of the EMP in gas-target experiments results from ejecting the cloud of slow electrons, not the beam of fast electrons	LATHAM, Joshua	

Tuesday, 23 July 2024

Poster [Atrium]: Poster Session 2 (18:00 - 19:30)

[id] title	presenter	board
[276] Plasma Instabilities with external magnetic field	LACOSTE, Clément	
[67] Field mapping of blowout regime CO ₂ -laser-driven LWFA at low density using electron beam probing	GAIKWAD, Apurva	
[280] Testing of a W-band Corrugated Waveguide for High-Gradient High-Efficiency Wakefield Acceleration (student)	LEUNG, Brendan	
[253] Start-to-End simulation of THz-wakefield acceleration in dielectric-lined waveguides with multiple-bunch excitation (student)	PHILLIPS, Calcifer	
[250] Measuring the beam-breakup instability in beam-driven plasma wakefield accelerators (student)	FINNERUD, Ole Gunnar	
[242] Expected Performance of a Photocathode Electron Gun Injector for the Advanced Photon Source Linac	WOOTTON, Kent	
[239] Standing Wave Dielectric Disk Accelerating Structure Design and Cold Test Results	WEATHERLY, Sarah	
[234] Fabrication of Submillimetric Dielectric Nozzles using Ultrafast Laser Micromachining for kHz Repetition Rate Laser Electron Acceleration	FELICIO ZUFFI, Armando Valter	
[232] Investigation of spectral phase fluctuations on the performance of an LPA-driven FEL	KOHRELL, Finn	
[230] Beam shaping and homogenization using combined refractive beam shaper and adaptive optics	LU, Anthony	
[228] Development and characterization of meter scale gas jets suitable for ≥ 10 GeV electron acceleration in HOFI plasma channels	LI, Raymond	
[194] A PWFA-LC stage with beam realignment and emittance preservation	HILDEBRAND, Lance	
[164] Optimizing plasma-downramp profiles and beam transport for emittance preservation in multi-stage plasma accelerators	GARTEN, Marco	
[195] Creation of a THz Smith-Purcell Radiation Source using a LWFA Electron Bunch	RUDZINSKY, Ross	
[198] Capillary discharge based plasma source at UCLA	MANWANI, Pratik	
[186] The GPU Algorithm in QuickPIC	TIAN, Yueran	
[143] Observing Self-Modulation Growth through Light Emission of Dissipating Wakefields	MEZGER, Jan	
[202] Multi-Joule Scalable, Distortion-Free Pre-Pulse Contrast Enhancement Using Multi-pass Cells	Mr GARNER, Michael	
[200] Short-pulse methods in fiber chirped pulse amplification systems towards kHz plasma accelerator drivers	HU, Michelle	
[184] Designing Flying Focus Optics with Adjoint Optimization	KIM, Grace	
[159] Simulation studies on externally injected CO ₂ driven LWFA	CAO, Yuxuan	
[152] Enhanced particle acceleration via interaction of an "infinite" array of co-propagating beamlets	ERNST, Nicholas	
[261] Implementation of a Mesh refinement algorithm into the quasi-static PIC code QuickPIC(student)	SU, Qianqian	

[260] High-flux betatron x-rays for fast tomography of pore dynamics in advanced materials (student)	SENTHILKUMARAN, Vigneshvar	
[259] Exploring Dark Matter with Dielectric Laser Acceleration (student)	DADASHI MOTLAGH, Raziye	
[258] Demonstration of proton bunch self-modulation in a discharge plasma source (student)	AMOEDO, Carolina	
[257] Analytical and Numerical Studies of Dark Current in Radiofrequency Structures for Wakefield Acceleration	Mr RIJAL, Gaurab	
[256] Angularly-resolved reconstruction of streaked betatron X-ray spectra from laser wakefield acceleration experiment	FITZGARRALD, Rebecca	
[255] Canonical Electrodynamics and Continuous Symmetries in Discrete Reductions	HIGUET, Adam	
[252] Delivering Laser-Driven Proton Beams to Biological Samples at BELLA iP2 (student)	DE CHANT, Jared	
[249] Experimental demonstration of cascaded round-to-flat and flat-to-round beam transformations at the Argonne Wakefield Accelerator Facility	CHEN, Gongxiaohui	
[244] Upgrade Plans for the Argonne Wakefield Accelerator	ODY, Alexander	
[168] Target metrology of Inertial Confinement Fusion fuel capsules using a Laser Wakefield Acceleration based Betatron X-ray source	PAGANO, Isabella	
[190] Using DFT and Monte Carlo Simulations to Study Scattering Mechanisms and Their Effect on Energy Loss in Thin-Film Alkali Antimonide Photocathodes	FRANKLIN, Daniel	
[144] Quantum Radiation-Reaction Trapping of an Electron-Positron Pair Plasma	Dr YOUNIS, Daniel	
[117] UT3 Accelerator Applications Development Facility	FRANKE, Philip	
[141] Amplitude Reproducibility of the Self-Modulation Process of a Proton Bunch in Plasma	CLAIREMBAUD, Arthur	
[125] Low energy spread beams with single stage, single bunch Trojan Horse injection	BERMAN, Lily	
[140] SPARTA: Staging of Plasma Accelerators for Realizing Timely Applications	Dr LINDSTRØM, C. A.	
[112] Aligning Meter-scale Laser-ionized Plasmas to the Electron Beam Using Plasma Afterglow	LEE, Valentina	
[176] Ion acceleration and beam quality preservation of structured targets using PetaWatt-class lasers via Hole- Boring Radiation Pressure Acceleration	KIM, Ji Hoon	
[246] Implementation of an Active Laser-Beam Stabilization System for Laser-Plasma Electron Accelerator Improvement	GREENWOOD, Benjamin	
[192] Broadband Operation and Machine Protection in a Fiber Laser Driver for Wakefield Accelerators	LOGANTHA, Mahek	
[171] Effects of pulse evolution on ionization injection in meter-scale multi-GeV laser wakefield acceleration	SLOSS, Ari	
[124] Third harmonic generation for two-color ionization injection in laser-plasma accelerators	FAN-CHIANG, Liona	