

EuroNNAc Special Topics Workshop

Monday, September 19, 2022

Special Topic: Beam-driven Plasma Accelerators with focus on proton-driven (AWAKE, ...) - Sala Maria Luisa - Hotel

Hermitage (4:00 PM - 5:30 PM)

-Conveners: Edda Gschwendtner; Patric Muggli

time	[id] title	presenter
4:00 PM	[152] Introduction	GSCHWENDTNER, Edda MUGGLI, Patric
4:05 PM	[105] AWAKE RUN 2: Program and plans	BERGAMASCHI, Michele
4:25 PM	[104] Electron bunch seeding of the self-modulation instability in plasma	VERRA, Livio
4:45 PM	[113] Hosing of a long proton bunch induced by an electron bunch	NECHAEVA, Tatiana
5:05 PM	[50] Mitigation of the onset of hosing in the linear regime through plasma frequency detuning	MOREIRA, Mariana
5:25 PM	[153] Discussion	

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Hermitage (5:50 PM - 7:15 PM)

-Conveners: Edda Gschwendtner; Patric Muggli

time	[id] title	presenter
5:50 PM	[90] Electron injector system for AWAKE Run 2	DOEBERT, Steffen
6:10 PM	[134] Self-matching in a quasilinear wakefield	FARMER, John
6:30 PM	[121] e4AWAKE: Next generation electron source for the Advanced Wakefield Experiment (AWAKE) at CERN	ZEVI DELLA PORTA, Giovanni
6:50 PM	[119] EARLI: designing a LWFA for AWAKE Run2	Dr MINENNA, Damien

Tuesday, September 20, 2022

Special Topic: Beam-driven Plasma Accelerators with focus on proton-driven (AWAKE, ...) - Sala Maria Luisa - Hotel Hermitage (9:00 AM - 10:30 AM)

-Conveners: Edda Gschwendtner; Patric Muggli

time	[id] title	presenter
9:00 AM	[140] Particle Physics Applications for Proton-Driven PWA	CALDWELL, Allen
9:25 AM	[149] Operational Aspects of Beam-Driven Facilities	GESSNER, Spencer
9:45 AM	[141] Effects of plasma ramp measured in AWAKE	PUCEK, Jan
10:00 AM	[118] Numerical simulation study of the propagation of a short electron bunch and a long proton bunch in a plasma ramp	MORALES GUZMAN, Pablo Israel
10:15 AM	[158] Discussion	

Special Topic: Simulation tools and roadmap - Sala Maria Luisa - Hotel Hermitage (10:50 AM - 12:30 PM)

-Conveners: Maxence Thevenet; Jorge Vieira

time	[id] title	presenter
10:50 AM	[103] Applications of machine learning to plasma-based acceleration	Dr LEHE, Remi
11:10 AM	[42] Examples of PIC code limit and potential for the simulation of wakefield acceleration and accelerator applications	DAVOINE, Xavier DAVOINE, Xavier
11:30 AM	[57] openPMD – F.A.I.R. and open scientific I/O at the Exascale Era	POESCHEL, Franz
11:40 AM	[6] Direct laser acceleration of positrons with intense pulses	Dr MARTINEZ, Bertrand
12:00 PM	[115] Recent advances in quasi-static Particle-in-Cell simulations for modeling plasma accelerators	DIEDERICHS, Severin
12:20 PM	[154] Discussion	

Special Topic: Laser Technology and LWFA Results (e-, p+, ion) - Sala Maria Luisa - Hotel Hermitage (4:00 PM - 5:40 PM)

-Conveners: Leonida Antonio Gizzi; Stefan Karsch

time	[id] title	presenter
4:00 PM	[35] Stability of ionization-injection-based laser-plasma accelerators	BOHLEN, Simon
4:20 PM	[48] High-Resolution Diagnostics for Laser Wakefield Accelerators – a Tool for Detailed Insights into the Interaction	KALUZA, Malte
4:40 PM	[107] GeV-scale accelerators driven by plasma-modulated pulses from kilohertz lasers.	WALCZAK, Roman
5:00 PM	[124] Carrier-envelope phase control of a kilohertz laser-wakefield accelerator	ROVIGE, Lucas
5:20 PM	[136] Laser-plasma acceleration for tomography and radiotherapy	LUNDH, Olle

Special Topic: Laser Technology and LWFA Results (e-, p+, ion) - Sala Maria Luisa - Hotel Hermitage (6:00 PM - 7:20 PM)

-Conveners: Stefan Karsch; Leonida Antonio Gizzi

time	[id] title	presenter
6:00 PM	[58] Establishing Laser Accelerated Proton Beam Performance for Dose Controlled Irradiation Studies and Beyond	SCHRAMM, Ulrich
6:20 PM	[135] Enhancing the proton cutoff energy in Target Normal Sheath Acceleration via an improved laser-to-electron coupling in long-scale plasma gradients	BOELLA, Elisabetta
6:40 PM	[63] Beam driven wakefield characteristics probed by femtosecond-scale shadowgraphy	SCHOEBEL, Susanne
7:00 PM	[117] Development and characterization of Plasma Targets for LWFA experiments at SPARC_LAB	COSTA, Gemma

Wednesday, September 21, 2022

Special Topic: Laser Technology and LWFA Results (e-, p+, ion) - Sala Maria Luisa - Hotel Hermitage (9:00 AM - 10:40 AM)

-Conveners: Leonida Antonio Gizzi; Stefan Karsch

time	[id] title	presenter
9:00 AM	[11] External injections of electrons into a laser-driven plasma wakefield at CLARA	Dr CORNER, Laura
9:20 AM	[151] Coherent combination of fiber lasers towards drivers for future wakefield accelerators	Prof. LIMPERT, Jens
9:40 AM	[44] Thin-Disk Amplifiers and Nonlinear Pulse Compression	Dr METZGER, Tom
10:00 AM	[94] Proton and deuteron acceleration with few-cycle, relativistic intensity laser pulses	OSVAY, Karoly
10:20 AM	[91] Roadmap at Amplitude for high average power PW system	FALCOZ, Franck

Special Topic: Laser Technology and LWFA Results (e-, p+, ion) - Sala Maria Luisa - Hotel Hermitage (11:00 AM - 12:30 PM)

-Conveners: Stefan Karsch; Leonida Antonio Gizzi

time	[id] title	presenter
11:00 AM	[146] Latest developments of high repetition rate TiSa lasers for laser plasma accelerators	Mr SIMON-BOISSON, Christophe
11:20 AM	[128] Khz rep-rate, kW average power class laser development with Tm-based ceramics	Dr LABATE, Luca LABATE, Luca Umberto
11:40 AM	[137] OPCPA as an amplifier technology for high repetition rate 100 TW-class lasers	GREEN, Tyler
12:00 PM	[122] KALDERA	MAIER, Andreas
12:20 PM	[155] Discussion	

Special Topic: Distributed Plasma Accelerator Landscape in Europe and Technical Progress towards Applications (EuPRAXIA ESFRI and others) - Sala Maria Luisa - Hotel Hermitage (4:00 PM - 5:30 PM)

-Conveners: Enrica Chiadroni; Riccardo Pompili

time	[id] title	presenter
4:00 PM	[150] EuPRAXIA	ASSMANN, Ralph
4:20 PM	[143] Status of the EuPRAXIA@SPARC_LAB project	FERRARIO, Massimo
4:40 PM	[41] Laser-plasma acceleration at ELI-Beamlines	Dr MOLODOZHENTSEV, Alexander
5:00 PM	[20] Plasma Acceleration at EPAC	PATTATHIL, Rajeev
5:15 PM	[138] PALLAS, a laser-plasma injector test facility, development status	Dr CASSOU, Kevin

Thursday, September 22, 2022

Special Topic: Distributed Plasma Accelerator Landscape in Europe and Technical Progress towards Applications (EuPRAXIA ESFRI and others) - Sala Maria Luisa - Hotel Hermitage (9:00 AM - 10:35 AM)

-Conveners: Riccardo Pompili; Enrica Chiadroni

time	[id] title	presenter
9:00 AM	[15] ARES at DESY, with femtosecond synchronization and high stability infrastructures towards advanced accelerator applications.	BURKART, Florian
9:25 AM	[162] Plasma-wakefield acceleration at high repetition rates	D'ARCY, Richard
9:50 AM	[14] Design of plasma sources for compact accelerators	BIAGIONI, Angelo
10:15 AM	[47] Stable and high quality electron beams from staged laser and plasma wakefield accelerators	KARSCH, Stefan

Special Topic: Distributed Plasma Accelerator Landscape in Europe and Technical Progress towards Applications (EuPRAXIA ESFRI and others) - Sala Maria Luisa - Hotel Hermitage (10:55 AM - 11:20 AM)

-Conveners: Riccardo Pompili; Enrica Chiadroni

time	[id] title	presenter
10:55 AM	[144] Overview of betatron radiation sources and applications	MANGLES, Stuart

Friday, September 23, 2022

Special Topic: International Landscape: Facilities, projects, initiatives - Sala Maria Luisa - Hotel Hermitage (9:30 AM - 10:30 AM)

-Conveners: Masaki Kando; Mark Hogan; Pietro Musumeci

time	[id] title	presenter
9:30 AM	[148] US Advanced Accelerator Facilities	GESSNER, Spencer
10:00 AM	[139] an update on advanced plasma accelerator activities in China	LU, Wei

Special Topic: International Landscape: Facilities, projects, initiatives - Sala Maria Luisa - Hotel Hermitage (10:50 AM - 12:30 PM)

-Conveners: Mark Hogan; Masaki Kando; Pietro Musumeci

time	[id] title	presenter
10:50 AM	[52] The Cool Copper Collider	DHAR, Ankur
11:20 AM	[142] An Introduction to the Center for Bright Beams and its Research	MAXSON, Jared
11:50 AM	[125] Conclusions from the 2021 Snowmass Process	TURNER, Marlene
12:20 PM	[157] Discussion	

Special Topic: Structure-based accelerators (e.g. ACHIP) and advanced radiation generation schemes - Sala Maria Luisa - Hotel Hermitage (4:00 PM - 5:30 PM)

-Conveners: Rasmus Ischebeck

time	[id] title	presenter
4:00 PM	[163] Accelerator on a chip program overview	MUSUMECI, Pietro
4:30 PM	[164] Phase space control and net energy gain in photonic chip based accelerators	Ms KRAUS, Stefanie
4:50 PM	[147] Dielectric laser accelerators for relativistic energies	DADASHI MOTLAGH, Raziye
5:10 PM	[160] Free-electrons manipulation with light in an RF-cavity-based Ultrafast Transmission Electron Microscope	BORRELLI, Simona