

## European Workshop on Photocathodes for Particle Accelerator Applications 2022

Tuesday Sept. 20	Author	Institute	Subject
	13:00 Registration		
	13:30 Welcome		
Session 1	14:00-15:30 Overview of Photocathode Research		
	14:00-14:30 Luca Serafini 14:30-14:50 Boris Militsyn	INFN STFC	High brightness beams ERL Roadmap for Europe
	14:50-15:10 Laura Monaco	INFN	Recent advancements on photocathodes
	15:10-15:30 Kurt Aulenbacher	MAINZ	Experience on polarized photocathodes
	15:30-16:00 Coffee Break		
Session 2	16:00-18:00 Photocathode Performance in Accelerator Applicati	ons	
	16:00-16:20 Carlos Hernandez Garcia	JLAB	JLAB DC gun developments
	16:20-16:40 Verena Kuemper	RI	CsK <sub>2</sub> Sb-photocathodes for application in an industrial accelerator
	16:40-17:00 Jennifer Groth	MESA	Status of precise measurements ofelectron-beam polarization changes during long term of
	17:00-17:20 Sven Lederer	DESY/XFEL	Cs2Te performance for XFEL facility
	17:20-17:40 Huame Xie	Peking Univiversity	Performance of bialkali photocathode in DC-SRF photoinjector
_	17:40-18:00 Theo Vecchione	SLAC	Photocathode perfomance at LCLS-II
Poster	18:00-19:00		
Wednesday Sept. 2	21		
Session 3	9:00-10:30 New Photocathode Ideas		
	9:00-9:20 Chris Benjamin	Univ. of Warwick & STFC	Ultra-thin MgO films on metal photocathodes to enhance QE
	9:20-9:40 Carlo Benedetti	LBNL	Plasma photocathode
	9:40-10:00 Luciano Velardi	Uni Salento-Lecce	Innovative photocathodes based on nanodiamond layers
	10:00-10:20 Nathan Moody	LANL	Protective layers on bi-alkali cathodes
	10:20-10:40 Evan Antoniuk 10:40-11:10 Coffee Break	Stanford	AI/ML-selection of air-stable photocathodes
Session 4	11:10-12:30 Metallic Photocathode		
56351011 4	11:10-12:30 Metallic Photocallode	Univ. of Liverpool & STFC	Studies on the evolution of MTE for photocathdes subjected to controlled degradation b
	11:30-11:50 Tim Noakes	STFC	Copper cathode
	11:50-12:10 Jochen Teichert	HZDR	Magnesium cathode
	12:10-12:30 J Lorkiewicz	NCBJ	Lead cathode for DESY SRF gun
Lunch	12:30-14:00 Lunch		
Session 5	14:00-15:30 Semiconductor Photocathode		
	14:00-14:20 Chen Wang	BerlinPro	Multi-alkali antimonide photocathodes for highly brilliant electron beams
	14:20-14:40 Lee Jones	STFC/CERN	Performance characterisation at Daresbury Laboratory of CsTe photocathodes grown at
	14:40-15:00 Sandeep Mohanty	INFN/DESY	Cs2Te / KCsSb in gun operation
	15:00-15:20 Rong Xiang	HZDR	Operation of Cs2Te in SRF gun for THz user shifts
	15:30-16:00 Coffee Break		
Lab Visit	16:00-18:00 LASA Visit		
Thursday Sept. 22			
Session 6	09:00-10:30 Theory		
000010	09:00-09:20 G. Adhikari	DESY PITZ	Monte Carlo transverse emittance and quantum efficiency study on Cs2Te
	09:20-09:40 Zenggong Jiang	SINAP	Monte Carlo simulations of electron photoemission from plasmon-enhanced bialkali pho
	09:40-10:00 Holger Sassnick	Uni-Oldenburg	Exploring cesium-tellurium phase space via high-throughput calculations beyond semi-l
		University of Illinois	Ultrafast sub-threshold one-photon photoemission
	10:00-10:20 Andrea Scroeder		
	10:00-10:20 Andrea Scroeder 10:30-11:00 Coffee Break		
Session 7			
Session 7	10:30-11:00 Coffee Break	Arizona University	MTE measurement
Session 7	10:30-11:00 Coffee Break 11:00-12:30 Advanced Photocathode Characterization	Arizona University DESY	MTE measurement Response time
Session 7	10:30-11:00Coffee Break11:00-12:30Advanced Photocathode Characterization11:00-11:20Siddartha Karkare (Arizona University)		
Session 7	10:30-11:00Coffee Break11:00-12:30Advanced Photocathode Characterization11:00-11:20Siddartha Karkare (Arizona University)11:20-11:40Loisch	DESY	Response time Resolving surface chemical states in XPS analysis of p-GaN photocathodes Nucleation of single crystal photocathode on atomically thin graphene substrate using c
Session 7	10:30-11:00Coffee Break11:00-12:30Advanced Photocathode Characterization11:00-11:20Siddartha Karkare (Arizona University)11:20-11:40Loisch11:40-12:00Jana Schaber	DESY HZDR	Response time Resolving surface chemical states in XPS analysis of p-GaN photocathodes







n operation

n by gas exposure

at CERN

photocathode ni-local density-functional theory

g co-deposition of cesium telluride ncy photocathodes s by molecular beam deposition