

LCLS Approved Experiments for Run 5, ~November 2011-May 2012

Beam Line/ Instrument	Proposal #	Proposal Lead Spokesperson/PI	Approved Commissioning and User Experiments	LCLS Beam Line Scientist (Point of Contact)
AMO	L387	TRABERT, ELMAR	Atomic lifetime measurement testing atomic structure theory and serving astrophysics	John Bozek/Christoph Bostedt
AMO	L406	BERRAH, NORA	Probing Coulomb confinement and nanoplasma generation in C60 ionized by LCLS pulses	John Bozek/Christoph Bostedt
AMO	L417	CAVALIERI, ADRIAN	One-to-One-Hundred Femtosecond X-ray Pulse Characterization	John Bozek/Christoph Bostedt
AMO	L421	COFFEE, RYAN	Time-resolved Auger relaxation via transient x-ray bleaching in O ₂	John Bozek/Christoph Bostedt
CXI	L391	MIAO, JIANWEI	3D Structure Studies of the Herpesvirus Capsid by Using a Hybrid Method Based on Coherent X-ray Diffraction Imaging and Cryo-Electron Microscopy/Merged with L398	Sébastien Boutet/Garth Williams
CXI	L398	MIAO, JIANWEI	Detection of Intracellular Amyloid Deposits by Micro-X-ray Diffraction from Biological Cells and Sub-Cellular Granules/Merged with L391	Sébastien Boutet/Garth Williams
CXI	L399	NEUTZE, RICHARD	Time-resolved Wide Angle X-ray Scattering and Nano-Crystallography Diffraction Studies of Ultrafast Membrane Protein Dynamics/Merged with L433	Sébastien Boutet/Garth Williams
CXI	L401	ABBEY, BRIAN	Characterisation of the Electronic and Structural Damage to Biomolecules Induced by X-ray Free-electron Lasers	Sébastien Boutet/Garth Williams
CXI	L431	FRANK, MATTHIAS	Improved high-resolution structure determinations of biological macromolecules by combined LCLS CXI and cryo-EM measurements	Sébastien Boutet/Garth Williams
CXI	L432	FROMME, PETRA	Femtosecond nanocrystallography of membrane proteins/Merged with L490	Sébastien Boutet/Garth Williams
CXI	L433	FROMME, PETRA	Molecular Movies of water oxidation in Photosystem II: the higher S- states/Merged with L399	Sébastien Boutet/Garth Williams
CXI	L434	FUCHS, MATTHIAS	Nonlinear X-ray	Sébastien Boutet/Garth Williams
CXI	L445	HAJDU, JANOS	Giant Viruses and the Structure of the Viral Genome	Sébastien Boutet/Garth Williams
CXI	L490	STEVENS, RAYMOND	Femtosecond nanocrystallography of G protein-coupled receptors in lipidic cubic phases/Merged with L432	Sébastien Boutet/Garth Williams
CXI	L498	YACHANDRA, VITTAL	Structure and Mechanism of the Photosynthetic Mn ₄ Ca Water-Splitting Complex: Simultaneous Crystallography and Spectroscopy	Sébastien Boutet/Garth Williams
MEC	L481	SCHROPP, ANDREAS	High-resolution phase contrast imaging of shock waves in matter using compound refractive X-ray optics/Merged with L494	Hae Ja Lee/Bob Nagler

MEC	L494	VOGT, ULRICH	Investigation on the stability of tungsten zone plates irradiated with 8 keV FEL pulses/Merged with L481	Hae Ja Lee/Bob Nagler
MEC	L497	WARK, JUSTIN	LCLS - The Perfect Probe: Charge State Distributions in Warm Dense Matter	Hae Ja Lee/Bob Nagler
SXR	L396	SCHERZ, ANDREAS	Terahertz-Manipulation of Orbital Magnetism in Next Generation Magnetic Storage Media/Merged with L409	William F. Schlotter/Joshua J. Turner
SXR	L407	BEYE, MARTIN	Following a complete chemical reaction in real time	William F. Schlotter/Joshua J. Turner
SXR	L409	BOEGLIN, CHRISTINE	Femtosecond spin manipulation/Merged with 396	William F. Schlotter/Joshua J. Turner
SXR	L496	WALL, SIMON	Imaging dynamic phase-separation and nanocurrents in manganites by time resolved coherent x-ray scattering	William F. Schlotter/Joshua J. Turner
XCS	L443	GRUEBEL, GERHARD	Split-Pulse XPCS Experiments	Aymeric Robert/Chiara Caronna
XCS	L463	LEHENY, ROBERT	Dynamics in gels and clay suspensions investigated by time-correlation spectroscopy of speckle patterns	Aymeric Robert/Chiara Caronna
XCS	L467	MADSEN, ANDERS	Atomic-scale dynamics and local structure of a metallic glass former	Aymeric Robert/Chiara Caronna
XCS	L489	STEPHENSON, GREGORY	X-ray Correlation Spectroscopy of Atomic-Scale Dynamics in Liquids and Glasses	Aymeric Robert/Chiara Caronna
XPP	L390	STAUB, URS	Time scales of charge and orbital order in relation to the Jahn-Teller distortion and structural modifications in manganites	David Fritz/Marco Cammarata
XPP	L403	ANFINRUD, PHILIP	Towards ultrafast time-resolved diffraction studies of proteins - the myoglobin showcase	David Fritz/Marco Cammarata
XPP	L419	CHEN, LIN	Transition State Structural Dynamics in Photochemical Processes	David Fritz/Marco Cammarata
XPP	L430	FOERST, MICHAEL	Nonlinear Phonon Control in Quantum Solids: A Femtosecond Crystallographic Determination	David Fritz/Marco Cammarata
XPP	L435	GAFFNEY, KELLY	Coherent structural dynamics of aqueous complex using time-resolved diffuse x-ray scattering	David Fritz/Marco Cammarata
XPP	L441	GRABER, TIMOTHY	Ultrafast photoisomerization in biological photoreceptors	David Fritz/Marco Cammarata
XPP	L447	HARMAND, MARION	A reliable, easy-to-use timing tool for pump-probe experiments at FEL facilities	David Fritz/Marco Cammarata
XPP	L456	KRASNIQI, FATON	Ultrafast Dynamics in Laser-Excited Magnetic Semiconductors	David Fritz/Marco Cammarata
XPP	L477	ROBINSON, IAN	Pump-probe investigation of femtosecond laser-irradiation of gold nanocrystals	David Fritz/Marco Cammarata
XPP	L487	SOKOLOWSKI-TINTEN, KLAUS	Transient structure of laser-generated disordered states investigated by ultrafast diffuse X-ray scattering	David Fritz/Marco Cammarata