

# PAC03 Manuscripts by APS Personnel

## Oral Sessions

### Tuesday, May 13

<b>TOAB004</b>	E. Moog (XFD/MD)	Novel Insertion Devices
<b>TOPA010</b>	N. Sereno (AOD/OAG) M. Borland, H. Shang	Advanced Photon Source Booster Synchrotron Low-Emittance Lattice Commissioning Results
<b>TOPA014</b>	L. Emery (AOD/OAG) M. Borland	Possible Long-Term Improvements to the Advanced Photon Source
<b>TOPB008</b>	F. Lenkszus (ASD/CTLS) L. Emery, R. Soliday, H. Shang. O. Singh, M. Borland	Integration of Orbit Control with Real-time Feedback

### Wednesday, May 14

<b>WOAB011</b>	V. Sajaev (ASD/PHY)	Transverse Impedance Distribution Measurements using the Response Matrix Fit Method at APS
<b>WOPA002</b>	S. Milton (XFD/ADM)	Next Generation Free-Electron Laser Systems

### Thursday, May 15

<b>ROPB008</b>	R. Dörwagt (ASD/ME)	Low-Conductivity Water Systems for Accelerators
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## Poster Sessions

### Monday, May 12

<b>MPPB001</b>	S.H.- Lee (XFD/XFE) P. Den Hartog, E. Trakhtenberg	Insertion Device Vacuum Chamber for the Linac Coherent Light Source
<b>MPPB002</b>	N. Sereno (AOD/OAG)	Advanced Photon Source Booster Synchrotron Subharmonic RF Capture Design

<b>MPPB003</b>	E. Trakhtenberg (XFD/XFE) B. Brajuskovic, P. Den Hartog, G. Wiemerslage	New Insertion Device Vacuum Chamber at the Advanced Photon Source
<b>MPPB004</b>	P. Den Hartog (XFD/XFE) G. Decker, L. Emery	Dual Canted Undulators at the Advanced Photon Source
<b>MPPB037</b>	Y. Li (ASD/PHY) Z. Huang, J. Lewellen, S.V. Milton, V. Sajaev, K.-J. Kim	Temporal Characteristics of a SASE FEL
<b>MPPB061</b>	S. Biedron (XFD/ADM) S. Milton, R. Alberto, G. Dattoli, P.-L. Ottaviani, H. Freund	Evolution of Transverse Modes in a High-Gain Free-Electron Laser
<b>MPPG001</b>	B. Brajuskovic (XFD/XFE) P. Den Hartog, E. Trakhtenberg Coherent Light Source	Mechanical Analysis of the Prototype Undulator for the Linac
<b>MPPG002</b>	S.H. Kim (XFD/MD) R. Dejus, C. Doose, R. Kustom, E. Moog, M. Petra, K. Thompson	Development of a Short-Period Superconducting Undulator

### Tuesday, May 13

<b>TPAB001</b>	D. Horan (ASD/RF) E. Cherbak	Fast Ferrite Tuner Operation on a 352-MHz Single-Cell RF Cavity at the Advanced Photon Source
<b>TPAG001</b>	S. Berg (ASD/VAC) D. Bromberek, J. Gagliano, A.E. Grellick, G. Goepfner, A. Nassiri, T. Smith	Rebuilding WR-340 and WR-284 Waveguide Switches to Meet Higher Power at the Advanced Photon Source
<b>TPAG002</b>	S. Pasky (AOD/OPS) R. Soliday	Conducting Research and Operator Training While Maintaining Top-up Reliability using the Advanced Photon Source Linear Accelerator
<b>TPAG003</b>	T. Smith (ASD/RF) G. Waldschmidt, A. Grellick, S. Berg	Bidirectional Coupler Optimization in WR284 Waveguide

### Wednesday, May 14

<b>WPAB001</b>	S. Berg (ASD/VAC) T. Barsz, D. Briddick, M. Givens, G. Goepfner, A.E. Grellick, W. Jansma, J. Lewellen, A. Lopez, M. Martens, W. Michalek, S. Wesling	The Advanced Photon Source Injector Test Stand: Phase Two
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<b>WPAB003</b>	J. Lewellen (ASD/PHY)	Energy-Spread Compensation of a Thermionic-Cathode RF Gun
<b>WPAB004</b>	J. Lewellen (ASD/PHY) K. Beczek, S. Berg, D. Briddick, R. Dortwelt, M. Givens, A. Grelick, A. Nassiri, S. Pasky, T.L. Smith	A Flexible Injector Test Stand Design
<b>WPAG001</b>	L. Emery (AOD/OAG) I. Vasserman, O. Makarov, B. Deriy, S. Sasaki, R. Soliday	Feedforward Correction of the Pulsed Circularly Polarizing Undulator at the Advanced Photon Source
<b>WPPB002</b>	A. Lumpkin (AOD/DIAG) C.Y. Yao, B.X. Yang, T. Toellner	Bunch Purity Evolution during APS Storage Ring Top-up Operations
<b>WPPB003</b>	A. Lumpkin (AOD/DIAG) V. Scarpine	The Feasibility of OTR Imaging of FNAL High-Intensity Proton Beams at
<b>WPPB004</b>	A. Lumpkin (AOD/DIAG) W.J. Berg, M. Borland, J. Lewellen	Recent Characterizations of Electron Beams from the APS Linac
<b>WPPB005</b>	A. Lumpkin (AOD/DIAG) W. Berg, M. Borland, J. Lewellen, N. Sereno	Initial CTR-based Bunch Length Measurements of Linac Beams Following the APS Bunch Compressor
<b>WPPB006</b>	A. Lumpkin (AOD/DIAG) B.X. Yang, C.Y. Yao, L. Emery	X-ray Imaging of the APS Storage Ring Beam Stability Effects: from the Alaskan Earthquake to Undulator Field Changes
<b>WPPB010</b>	N. Sereno (AOD/OAG) F. Lenkszus, R. Lill	Advanced Photon Source Booster Synchrotron Beam Position Monitor Upgrade and Applications
<b>WPPB011</b>	C.Y. Yao (AOD/OPS) K. Harkay, L. Emery	Tune System Applications at the APS
<b>WPPE001</b>	D. Dohan (ASD/CTLS) N.D. Arnold	Connection-Oriented Relational Database of the APS Control System Hardware
<b>WPPE002</b>	L. Emery (AOD/OAG) M. Borland, H. Shang	Use of a General-Purpose Optimization Module in Accelerator Control
<b>WPPE003</b>	J. Lewellen (ASD/PHY) S. Pasky	An Operator Training Facility at the Advanced Photon Source

<b>WPPG041</b>	G. Decker (AOD/OPS) X. Sun	Observation of Coherent Microwave Transition Radiation in the APS Linac
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### Thursday, May 15

<b>RPAG001</b>	L. Teng (ASD/PHY)	Linear Coupling of Emittances
<b>RPPB001</b>	Y-C. Chae (ASD/PHY) K. Harkay, X. Sun	Vertical Coupling Impedance of the APS Storage Ring
<b>RPPB002</b>	Y-C. Chae (ASD/PHY) X. Sun, K. Harkay	Horizontal Coupling Impedance of the APS Storage Ring
<b>RPPB003</b>	Y-C. Chae (ASD/PHY) K. Harkay, X. Sun	Longitudinal Coupling Impedance of the APS Storage Ring
<b>RPPB004</b>	Y-C. Chae (ASD/PHY)	The Impedance Database and Its Application to the APS Storage Ring
<b>RPPG002</b>	K. Harkay (ASD/PHY) L. Loiacono, R.A. Rosenberg	Studies of a Generalized Beam-induced Multipacting Resonance Condition

### Friday, May 16

<b>FPAB060</b>	C.X. Wang (ASD/PHY)	Measurement and Application of Betatron Modes with MIA
<b>FPAB061</b>	C.X. Wang (ASD/PHY)	Spatial-Temporal Modes Observed in the APS Storage Ring using MIA
<b>FPAG001</b>	M. Borland (AOD/OAG) L. Emery, H. Shang, R. Soliday	SDDS-Based Software Tools for Accelerator Design
<b>FPAG002</b>	L. Emery (AOD/OAG)	Application of Model-Independent Analysis Using the SDDS Toolkit
<b>FPAG004</b>	H. Shang (AOD/OAG) R. Soliday, L. Emery, M. Borland	New Features in the SDDS-Compliant EPICS Toolkit
<b>FPAG005</b>	R. Soliday (AOD/OAG) M. Borland, L. Emery, H. Shang	New Features in the SDDS Toolkit
<b>FPAG006</b>	R. Soliday (AOD/OAG) M. Borland, L. Emery, H. Shang	Use of a Simple Storage Ring Simulation for Development of Enhanced Orbit Correction Software