

PAC Days
 Boldface = days designated High Impact
 Parentheses = days not counting toward High Impact total

PAC41 "High Impact" Selection

Row Color
 Yellow = High Impact
 Green = backup expt

Exp#	Exp name	Hall	Run Group/ Days	PAC Days	PAC grade	Comments
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TOPIC 1 : SPECTROSCOPY

E12-06-102	GlueX : Mapping the Spectrum of Light Quark Mesons and Gluonic Excitations with Linearly Polarized Photons	D		(120) approved ★90	A	GlueX - assumed half commissioning/half physics ★plus (30) commissioning days
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TOPIC 2 : FORM FACTORS

E12-06-101	Measurement of the Charged Pion Form Factor to High Q ²	C		52	A	Requires fully commissioned SHMS
E12-07-109	GEp/GMp : Large Acceptance Proton Form Factor Ratio Meas's at 13 and 15 (GeV/c) ² Using Recoil Polarization Method	A		45	A-	Requires SBS and high power cryo target
E12-11-106	High Precision Measurement of the Proton Charge Radius	B		15	A	Non-CLAS12 experiment, Prad

TOPIC 3 : PDFs

E12-06-113	BONuS : The Structure of the Free Neutron at Large x-Bjorken	B	F/40	(40) approved ★21 ↓	A	Requires BONuS Radial TPC upgrade ★42 days High Impact for the experiment
E12-10-103	MARATHON : Measurement of the F _{2n} /F _{2p} , d/u Ratios and A=3 EMC Effect in DIS off the Tritium and Helium Mirror Nuclei	A	Tritium target group/61	↑ ★21 (42) approved	A	that runs first; experiments are equally important & both are essential
E12-06-110	A1n HallC-3He : Meas of Neutron Spin Asymmetry A _{1n} in the Valence Quark Region Using an 11 GeV Beam and a Polarized 3He Target in Hall C	C		36	A	Requires high luminosity 3He

TOPIC 4T : TMDs

C12-11-111	TMD CLAS-HDICE : SIDIS on Transverse polarized target	B	G/110	110 concurrent	A	Requires transversely polarized HDICE with electron beam
C12-12-009	Dihadron CLAS-HDICE : Measurement of transversity with dihadron production in SIDIS with transversely polarized target	B	G/110	(110) concurrent	A	Requires transversely polarized HDICE with electron beam C1 Proposal
E12-06-112	TMD CLAS-H(Unpol) : Probing the Proton's Quark Dynamics in Semi-Inclusive Pion Production at 12 GeV	B	A/139	(60) approved ★10	A	Hall B commissioning + 10 days ★plus (50) commissioning days

TOPIC 4G : GPDs

E12-06-114	DVCS HallA-H(UU,LU) : Measurements of Electron-Helicity Dependent Cross Sections of DVCS with CEBAF at 12 GeV	A	Early: DVCS & GMp/62	(100) approved ★70	A	Hall A commissioning
C12-12-010	DVCS CLAS-HDICE : DVCS at 11 GeV with transversely polarized target using the CLAS12 Detector	B	G/110	(110) concurrent	A	Requires transversely polarized HDICE with electron beam C1 Proposal
E12-11-003	DVCS CLAS-D(UU,LU) : DVCS on the Neutron with CLAS12 at 11 GeV	B	B/90	(90) approved	A	Requires D target; central neutron detector ready in 2016 ★Backup GPD-E meas if HDICE delayed

TOPIC 5 : NUCLEAR

E12-13-005	Bubble Chamber : Measurement of 16O(³ ,±)12C with a bubblechamber and a bremsstrahlung beam	INJ		14	A-	Our guess: 2017
E12-11-101	PREx-II : Precision Parity-Violating Measurement of the Neutron Skin of Lead	A		35	A	Requires septum, Pb target, 1% Moller polarimetry
E12-06-105	SRC-hiX : Inclusive Scattering from Nuclei at \$x > 1\$ in the quasielastic and deeply inelastic regimes	C		32	A-	
E12-11-112	SRC-Tritium : Precision measurement of the isospin dependence in the 2N and 3N short range correlation region	A	Tritium target group/61	19	A-	

TOPIC 6 : FUNDAMENTAL SYMMETRIES

E12-11-006	HPS : Status of the Heavy Photon Search Experiment at Jefferson Laboratory (Update on PR12_11_006)	B	H/180	(155) approved ★39	A	non-CLAS12 experiment, HPS ★25 pre-CLAS engr + 14 physics @ 4.4 GeV
E12-10-009	APEX : Search for new Vector Boson A1 Decaying to e+e-	A		34	A	Requires new septum and target system

<<< SUMMARY of "HIGH IMPACT" DAYS >>>

by Topic	1	2	3	4GT	5	6	total post-commissioning
	90	112	78	190	100	73	643
by Hall	A	B	C	D	INJ		
	224	195	120	90	14		643