NSTX Master XP list - CY2011-FY2012 XPs
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XP / XMP	Author	Proposal Title
		Advanced Scenarios and Control
1101	Mueller	Low Density Startup
	Mueller	Low Density, Low EF Startup
	Battaglia	Triggered Ohmic H-mode
	Sabbagh	Early PID and LQG RWM Control
1102	Canik	Long-Pulse EPH
1103	Gerhardt	Integrated Performance vs. A and kappa
1104	Kolemen	Snowflake Control
1105	Bell	HHFW for higher H-mode NBCD
	Menard	HHFW for q-profile control
1106	Gerhardt	Vertical Control Improvements
	Soukhanovskii	Advanced Scenario Snowflake
	Kolemen	MIMO Shape Control
1107	Maingi	USN H-modes
1108	Menard	Early Error Field Correction
	Kolemen	Rotation Control
	Lee	Density Feedback
1109	Gerhardt	Rampdown Development
1110	Gerhardt	Controlling Early MHD
	Petty	Testing Magnetic Diffusion
1111	Sabbagh	RWM PID Control
XMP-72	Gerhardt	PID RWM Checkout (XMP)
XMP-73	Podesta	rt-Vphi checkout (XMP)
XMP-74	Sabbagh	State-Feedback RWM Checkout (XMP)

Boundary Physics

1112	Diallo	Effects of Delta and Bt on the Pedestal Structure in ELMy H-mode
1113	Maingi	Dependence of ne profile mod, pedestal/core performance on Li
1114	Maingi	Reproduce medium delta Enhanced Pedestal H-mode Discharge
	K. C. Lee	T&T measurements on EP H-mode triggered by 3-D field
1075	Gray	Achieving I-mode on NSTX
1115	Diallo	Elongation Effects on the Pedestal Structure in ELMy H-mode
1116	Battaglia/Maingi	H-mode pedestal height versus X-point height
1117	Soukhanovskii	Snowflake divertor in support of R11-3 milestone and NSTX-U
	Soukhanovskii	Development & assessment of X-divertor configuration on NSTX
	Smith	Searching for EHOs in low triangularity plasmas with early RMP
	Sontag	Edge oscillations during Type-V and ELM-free H-mode
	Jaworski	Divertor Te and EEDF modification due to connection length mod
	Gray	Scrape-off Layer Particle & Energy Transport varying SOL Collision
	Takahashi	Optimal Positioning of ELM Triggering Electrodes
1118	Soukhanovskii	Radiative divertor with impurity seeding high-performance plasmas
	Loarte	Compatibility of Radiative Divertor with High Confinement H-modes
1119	Soukhanovskii	Snowflake divertor studies in support of NSTX-U divertor options
1120	Smith	Assess pedestal/SOL fluct & poloidal flow fluct - LH trans and ELMs
	Battaglia	L-H power thres for D & He plasmas using RFCD symmetric phasing
	Munsat	Dynamics of Zonal Flow-Drift Wave System Preceding L-H Transition
	Takahashi	Validation of SOLC-based ELM-triggering Model
	Takahashi	Distinguishing SOLC-Based ELM-Models - ID Flux Tube v. H. Tangle
	Diallo	Aspect Ratio Effects on the Pedestal Structure in ELMy discharges
	Kaye	L-H Threshold Power Study: Ramp-Up vs Steady Ip Phase
	Loarte	Access & sustainment of H-mode conf. in ramped phases of ITER
	Raman	Steady state discharges with LFS fueling
	Sontag	Effect of toroidal flow shear on edge stability
	Clementson	Development of Spectroscopic ITER Divertor Diagnostics

ITER and CC&E

1121	Soukhanovskii	Experiments to support NSTX-U divertor PFC design and operation
1122	Gerhardt	Passive impurity control techniques in NSTX-U scenarios
	Gray	Development of small ELM regime w/minimal Li for edge particle cntl
1123	Canik	X-point height scan at fixed strike point radius
1124	John Canik	Impact of 3-D fields on pedestal profiles without and with lithium
	Menard	Target development - explore edge transport/stability resp. 3D fields
	Sontag	Effect of collisionality on edge stability and transport
	Diallo/Canik	Edge Profile Response Induced by Perturbations on n=3 Static Fields
1125	Clayton/Tritz/Stutma	Effects of 3D Fields on Impurity Transport in the NSTX Plasma Edge
	McKee/Fonck/Smith	Impact of 3D radial field perts on turbulence, pedestal transport, ELMs
	Jaworski	SOL mods due to 3D fields, eval. of baffle-probes for X-field transport
	Goldston	Using Modulated ICRF to Drive EHOs and Modify Edge Transport
	Rob Goldston	Using Acoustic Frequency RMA to Drive EHOs Modify Edge Transport
	Kubota	Effect of 3-D Fields on Particle Transport
1126	Ahn	Density pumpout in L-mode plasmas
	Ahn	Effect of 3-D fields on the radiative/detached divertor plasmas
	Ahn	Effect of separatrix splitting on the ELM triggering threshold
	Battaglia/Shafer	Edge island imaging/ELM stability mod using vertically shifted plasma
	Buttery	Try Zero Shear Rational q Model for RMP ELM Suppression
1127	Lore	Search for q95 resonant effects on ELM frequency with 3D fields
1128	J.K. Park	ELM triggering test using the n=1 or n=2 field
	J.K. Park	ELM suppression in low q95 target plasmas
1031	Sabbagh/Evans/Zak	ELM stability dependence on edge current, q, and collisionality
	Soukhanovskii	Early divertor gas injection to suppress divertor C sources/fueling
1129	Maingi	Combination applied 3-D fields & snowflake divertor for impurity control
1130	Hubbard	Access and characterization of Imode regime on NSTX
1131	Menard	Early H mode impurity conf reduction with snowflake for impurity/ne cntl
1132	Canik	Combining ELM pacing with RF for edge and core impurity control
	Canik	ELM pacing at reduced frequency combined with divertor gas puff
	Canik	ELM pacing with n=3 fields and vertical jogs during Li, ELM-free disch.

Lithium Research

1133	Maingi	Controlled lithium introduction and discharge development...
1134	Kugel	Comparison of diverted plasmas on incident lithiated molybdenum...
XMP-71	Kugel	NSTX Start-up Commissioning and Evaluation Using Li Coating Only
1156	Jaworski	Lithium de-conditioning
1135	Soukhanovskii	Recycling, pumping and impurity studies with lithium-coated...
	Mansfield	Startup upgrade using lithium powder before, during & after breakdown
	Mansfield	Midplane injection of Li granules
	Gray	Evaluation of heat flux handling & erosion of molybdenum tiles NSTX-U
1136	Scotti	Carbon sources and scalings with lithium
1137	Taylor	Influence of outer strike point location on lithium...
1138	Skinner	XP on the relation between surface conditions and...
1139	Stotler	Diffusive evaporation of Li in He
	Mansfield	Midplane injection of Li powder
1140	Jaworski	Plasma electron spectroscopy for D, Li, and impurity monitoring
	Jaworski	SOL and PFC modification during in-situ lithiumization via...
	Jaworski	Comparison of local plasma parameters between Li & de-conditioned...
	Jaworski	Comparison of local plasma parameters with boronized machine
1141	Menard/Zakharov	Impact of increased Li thickness on particle pumping & performance

Macroscopic Stability

1142	Gerhardt	Test of ideal MHD stability as a function of A and elongation
	Gerhardt	MHD stability at Low-A and high normalized current
	Gerhardt	Opt. of early heat. and ramp rate to achieve stable op. at red. den.
1143	Menard	Role of kinetic dissipation in modifying RWM eigenfunctions
1144	Sabbagh	RWM stab. control, NTV rot. alteration of higher A targets
1145	Sabbagh	RWM state space control physics
1146	YSPark	RWM state space active control at reduced plasma rotation
1147	YSPark	RWM control physics with partial control coil coverage
1148	Berkery	RWM Stabilization Physics at Reduced Collisionality
1149	Berkery	RWM Stabilization Dependence on Energetic Particle Distribution
1150	Sabbagh	Neoclassical toroidal viscosity at reduced collisionality
1062	Sabbagh	NTV steady-state offset vel. at red. torque with HHFW (XP1062)
1151	Raman	Comparison of different gas inj. in reducing divertor heat loads
	Maclean	Experimental Study of Disruption Heat Loading and Halo Currents
	Zakharov	Disruptions, eddy currents, tile damage, Hiro currents, LLD
1152	Buttery	Influence of q profile on TM Beta Limit and 3D Field Sensitivity
1153	Menard	Physics of early EFC in reduced-density adv. scenarios
1154	JKPark	Later EFC including plasma response
1018	JKPark	Error Field Threshold Study with Reduced Input Torques
XMP-78	JKPark	High-n stability test using RFA
XMP-75	Gerhardt	XMP for upgrades to the betaN controller
XMP-79	JKPark	XMP for intrinsic error field investigation

Solenoid-free Start-up & Ramp-up

1155	Taylor	HHFW Ramp Up of Inductively Initiated Plasma from 250 to 400 kA
1034	Raman	Assess vessel conditions*
1157	Nelson	CHI-only discharges
1158	Taylor	HHFW Heating of CHI-initiated Plasma
1159	Raman	CHI+OH, zero pre-charge
	Mueller	700kA CHI started disc. For ASC
	Mueller	CHI + pre-charged OH
1160	Taylor	Low Plasma Current Fully Non-Inductive HHFW H-Mode
	Hooper	NIMROD simulations

Transport & Turbulence

1161	Kaye	Multi-channel transport and related microturbulence (group XP)
	Kubota	Particle Transport Using Gas Puff Modulation
	Soukhanovskii	Devel diagnostic method & pert. gas inj. for impurity,i,e heat trans. study
	Clayton	Impurity Transport Measurements in the NSTX Plasma Edge
1162	Mazzucato	ETG Turbulence and Anomalous Transport in NSTX
	Ren	ExB Shear Effect on Micro-turbulence in L and H mode plasmas
1163	Ren	Assessing the 2D k spectrum of high-k turbulence
1164	Guttenfelder	Collisionality scaling of turbulence at high beta
	Smith	Assessment of core low-k turbulence and poloidal flow fluctuations
1165	Smith	ETG turbulence in the k-theta, k-r plane
1166	Tritz	GAE effects on electron thermal transport
1167	Yuh	Measurement of residual turbulence in ITBs & explaining high-k bursts
	Kaye	L-H Threshold Power Study: Ramp-Up vs Steady Ip Phase
	Kubota	Search for GAMs Using Doppler Backscattering
	Solomon	Characterization of intrinsic torque and rho* scaling
	Munsat	Dynamics of Zonal Flow-Drift Wave System Preceding L-H Transition
	Guttenfelder	Polarimetry measurements of microtearing turbulence
	Lee	Measurement of ne fluctuation to study transport & L-H power thresholds
	Hosea	Turbulence Characteristics for HHFW Saturated Wtot versus RF Power
	Battaglia	L-H power threshold for D and He plasmas using RFCD w/sym phasing
	Lore	Effect of Rad. Power Fraction on Divertor Power Load & Core Confinm't
	Park	Intrinsic rotation in Ohmic L-mode and H-mode plasmas
	Petty	Aspect Ratio Scaling of Transport With DIII-D
	McKee	Dependence of Low-k turbulence properties on rho* in the ST

Waves and Energetic Particles

1160	Taylor	Low Plasma Current Fully Non-Inductive HHFW H-Mode
1155	Taylor	HHFW Ramp Up of Inductively Initiated Plasma from 250 to 400 kA
1158	Taylor	HHFW Heating of CHI-initiated Plasma
1168	Hosea	HHFW Power Coupling vs ELMs (HHFW & HHFW+NBI H-Modes)
	Hosea	RF Heating at Divertor/SOL Regions
	Bell	HHFW Heating to Increase Non-Inductive Current Fraction NBI H-mode
	Hosea	Turbulence Characteristics for HHFW Saturated Wtot versus RF Power
	Maingi	Comparison of H-mode Pedestal Characteristics with RF and NBI
	Diallo	Plasma Current Scaling of Pedestal Structure RF Heated ELMy H-mode
1012	LeBlanc/Podesta	HHFW Absorption in NBI Plasmas (HHFW Fast-Ion Interactions)
	Green	Benchmark Predictive Capability of Adv. Quasi-linear RF Sim. Codes
	Podesta	Clamping of Edge Rotation by HHFW
1169	Podesta	Dependence of TAE Dynamics on Plasma Rotation
	Crocker	Investigation TAE Radial Phase Variation
1014	Fredrickson	Documentation of Angelfish
1011	Fredrickson	H-mode TAE Avalanches
	Fredrickson	Documentation of GAE Avalanches
1170	Fredrickson	Document of High Frequency CAE
	Bortolon	Effect of High Frequency Bursting Modes on NBI CD Efficiency
	Bortolon	Effect of Low Frequency MHD on Fast-Ion Confinement
	Smith	Measure HHFW Wavefield
1171	Bortolon	Effect of Induced 3D Fields on Fast-Ion Distribution
	Loarte	Assessment of effects of 3-D fields on fast particle losses in ITER
	Medley	High Energy Feature Study with NPA and NBI Scans
	Kaye	Assessment of Fast Ion Loss by Microturbulence
	Taylor	Assess HHFW+NBI H-Mode Operation with Pnbi ~ 6 MW
XMP-76	Bortolon	t-FIDA Commissioning
XMP-26	Hosea	HHFW Plasma Conditioning to High RF Power
XMP-80	Fredrickson	TAE Antenna Commissioning