

**"Brookhaven Forum 2015: Great Expectations, a New Chapter,"
Brookhaven National Laboratory, Upton, NY, October 7-9, 2015**

Wednesday, October 7, 2015		
PLENARY PROGRAM I, Berkner Hall, Auditorium, Chair: T. Han		
8:45-9:00 a.m.	Welcome	D. Lissauer (Dep. Assoc. Lab Dir, BNL)
9:00-9:45 a.m.	"Latest Developments from CMS"	J. P. Chou (Rutgers, CMS)
9:45-10:30 a.m.	"ATLAS at the Beginning of Run II"	A. Arce (Duke, ATLAS)
10:30-11:00 a.m.	Coffee Break	Berkner Hall Lobby
PLENARY PROGRAM II, Berkner Hall, Auditorium, Chair: W. Kilgore		
11:00-11:45 a.m.	"Overview of the Latest Developments in Precision QCD"	R. Boughezal (Argonne)
11:45-12:30 p.m.	"Planck Results"	J. Bartlett (JPL, PLANCK)
12:30-1:30 p.m.	Lunch (on your own)	Berkner Hall Cafeteria

1:30-3:30 p.m. PARALLEL SESSION, Berkner Hall (Talks are 15' + 5' minutes)			
Naturalness Location: Room A Chair: I. Lewis	Top Physics Location: Room B Chair: P. Jaiswal	Cosmology Location: Room C Chair: T. Bhattacharya	Flavor Location: Auditorium Chair: C. Lehner
C. Balazs: "Naturalness and Supersymmetry"	M. Danninger: "First Top results at 13 TeV, ATLAS"	M. Buen-Abad: "Non-Abelian Dark Matter and Dark Radiation"	E. Lunghi: "Interplay Between Inclusive and Exclusive $b \rightarrow sll$ Decays"
S. Bar-Shalom: "EFT-Naturalness: Effective Field Theory Analysis of Higgs Naturalness"	J. Dror: "Using Unitarity to Make Precision Top Measurements"	E. Shintani: "Improved Estimate of Proton Lifetime"	X. Wang: "Recent Results from Belle"
D. Curtin: "A No-Lose Theorem for Naturalness"	A. Ferroglia: "Associate Production of a Top Pair and a Higgs Boson Beyond NLO by Means of SCET Methods"	H. Ramani: "Tight Scrutiny of Baryogenesis"	F. Wilson: "Recent Study of B-meson Decays with the BABAR Detector"
A. Monteux: "Testing Single RPV Squark Production at the LHC"	A. Garcia-Bellido: "First Top Results at 13 TeV, CMS"	Y. Zhang: "Baryon Number Violation via Majorana Neutrinos from Early Universe to LHC"	W. Sutcliffe: "Latest Results on R_{D^*} and V_{ub} from Semileptonic Decays at LHCb"
H. Ohki: "Lattice Study of Walking Dynamics in Many-flavor QCD"	C. Kao: "Top Flavor Changing Interactions with Neutral Higgs Bosons"	C-S Shin: "Isocurvature Perturbation of Weakly Interacting Massive Particles and Small Scale Structure"	S. Meinel: "Determination of $ V_{ub}/V_{cb} $ Using Baryonic Decays"
Y. Tsai: "Exotic Quarks in Twin Higgs Models"	J. Collins: "Mixed Stops and the ATLAS on-Z Excess"		C. Rosenfeld: "Physics Prospects at Belle II"
4:00-5:00 p.m.	<i>BSA Distinguished Lecture: "Universe or Multiverse?"</i> Andrei Linde (Stanford)		Berkner Hall Auditorium Hosted by Peter Wanderer (BNL)
5:00-6:00 p.m.	BSA Welcome Reception		Berkner Hall Lobby

Thursday, October 8, 2015		
PLENARY PROGRAM I, Berkner Hall, Auditorium, Chair: W. Marciano		
9:00-9:45 a.m.	"Highlights On Flavor Physics"	F. Teubert (CERN, LHCb)
9:45-10:30 a.m.	"Inflation, SUSY Breaking, and Cosmological Attractors"	A. Linde (Stanford)
10:30-11:00 a.m.	Coffee Break and Event Photo	Berkner Hall, Lobby
PLENARY PROGRAM II, Berkner Hall, Auditorium, Chair: S. Kettell		
11:00-11:45 a.m.	"LBNF/DUNE: An Experimental Program in Neutrino Oscillations, Nucleon Decay and Particle Astrophysics"	J. Strait (Fermilab)
11:45-12:30 p.m.	"Indirect Searches for Dark Matter with the Fermi Large Area Telescope"	E. Charles (KIPAC/SLAC, Fermi)
12:30-1:30 p.m.	Lunch (on your own)	Berkner Hall Cafeteria
PLENARY PROGRAM III, Berkner Hall, Auditorium, Chair: N. Sehgal		
1:30-2:15 p.m.	"The Storage Ring Proton EDM Experiment: Most Sensitive CP-violation Experiment"	Y. Semertzidis (CAPP/IBS, KAIST)
2:15-3:00 p.m.	"Probing Inflation, Neutrinos, and Dark Energy with the Cosmic Microwave Background: ACTPol and Beyond"	J. McMahon (UMichigan)

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Thursday, October 8, 2015 (continued)			
3:00-3:30 p.m.	Coffee Break	Berkner Hall Lobby	
3:30-5:30 p.m.	PARALLEL SESSION, Berkner Hall (Talks are 15' + 5' minutes)		
Standard Model Location: Room A Chair: A. Garcia-Bellido	Higgs and CP Location: Room B Chair: E. Lunghi	Dark Matter Location: Room C Chair: C. Balazs	Diboson Signals Location: Auditorium Chair: C. Kao
A. Belloni: “First SM Results at 13 TeV, CMS”	I. Lewis: “Usefulness of Effective Field Theory in Higgs Plus Jet Production”	D. Kim: “O(1) GeV Dark Matter in SUSY and a Very Light Pseudoscalar at the LHC”	A. Campoverde: “Heavy Diboson Searches from ATLAS”
Z. Davoudi: “Lattice QCD with General Background Electromagnetic Fields: Implementation and Applications”	C-Y Chen: “Higgs CP Violation from Vectorlike Quarks”	S. McDermott: “Wavelets at the Galactic Center”	H. Li: “Search for High Mass Higgs at WW and ZZ Channels Using ATLAS Run-I Data”
S. Shimizu: “First SM Results at 13 TeV, ATLAS”	E. Weinberg: “Is the Higgs a Composite Scalar?”	C. Zhang: “Accurate, Realistic, and Automatic Predictions for Dark Matter Production at the LHC”	B. Pollack: “Heavy Higgs Searches from CMS”
C. Lehner: “Hadronic Contributions (HVP, LbL) for Muon g-2 from Lattice QCD”	M. Geller: “The Composite Twin Higgs”	Y. Zhong: “Gravothermal Evolution of Galactic Dark Matter Halos with Velocity-dependent Self-interactions”	S. Shin: “Contributions of Vectorlike Leptons in the Diboson-like Signals”
R. Lu: “ $J_{E_T}^{\text{II}}$: A Two-Prong Jet Algorithm”	T. Bhattacharya: “Calculating nEDM using Lattice QCD”	D. Kim: “Energy Peak: Back to the Galactic Center GeV Gamma-ray Excess”	N. Tran: “Searches for Diboson Resonances at CMS”
C. Kelly: “Standard Model Prediction for Direct CP-violation in Kaon Decays”	F. Wilson: “Probing the Standard Model with $B \rightarrow K^{*0} l^+ l^-$ decays at LHCb”	G. Kribs: “Stealth Dark Matter”	P. Jaiswal: “Resummation Predictions for WW Production at the LHC”
Dinner 6:30-9:30 p.m. Coach Transportation- Berkner Hall 6:00 p.m.	BF2015 Banquet Dinner at Majestic Gardens (included in reg. fee) Transportation will be provided for all attendees by Hampton Jitney (Please arrive about ten minutes prior since the bus will depart promptly from Berkner Hall at 6:00pm and depart Majestic Gardens at 9:30pm)		

Friday, October 9, 2015		
PLENARY PROGRAM I, Berkner Hall, Auditorium, Chair: G. Kribs		
9:15-10:00 a.m.	“Direct Dark Matter Detection”	L. Baudis (UZurich)
10:00-10:45 a.m.	“Searching for New Paradigms After the Higgs”	A. Pomarol (UAB)
10:45-11:15 a.m.	Coffee Break and Event Photo	Berkner Hall Lobby
PLENARY PROGRAM II, Berkner Hall, Auditorium, Chair: S. Dawson		
11:15-12:00 p.m.	“Physics at Future Colliders”	T. Han (UPittsburgh)
12:00-12:15 p.m.	Closing Remarks	H. Davoudiasl (BNL); A. Soni (BNL)
END OF FORUM		

*Please contact the event coordinator, Nicole Kelly at nkelly@bnl.gov, or (631) 344-3807 for assistance.

Thank you for your participation in Brookhaven Forum 2015!