

Princeton Center for Theoretical Science

The Princeton Center for Theoretical Science is dedicated to exploring the frontiers of theory in the natural sciences. Its purpose is to promote interaction among theorists and seed new directions in research, especially in areas cutting across traditional disciplinary boundaries.

The Center is home to a corps of Center Postdoctoral Fellows, chosen from nominations made by senior theoretical scientists around the world. A group of senior Faculty Fellows, chosen from science and engineering departments across the campus, are responsible for guiding the Center. Center activities include focused topical programs chosen from proposals by Princeton faculty across the natural sciences. The Center is located on the fourth floor of Jadwin Hall, in the heart of the campus "science neighborhood". The Center hopes to become the focus for innovation and cross-fertilization in theoretical natural science at Princeton.

Faculty Fellows

Paul Steinhardt, Director
Igor Klebanov, Associate Director
Ravindra Bhatt
Adam Burrows
Curtis Callan
Roberto Car
Salvatore Torquato
Jeroen Tromp

Center Postdoctoral Fellows

Dmitry Abanin 2008-2011
Benjamin Basso 2009-2012
Adam Brown 2009-2012
Bryan Clark 2009-2012
Mariangela Lisanti 2010-2013
M. Lisa Manning 2008-2011
Matthew Reece 2008-2011
Marco Schiro', 2010-2013
Alexander Tchekhovskoy 2010-2013
Mosahito Yamazaki 2010-2013

Associate Postdoctoral Fellows

Shravan Hanasoge 2010-2011

To find out more about Center Postdoctoral Fellowships and Programs see:

<http://pcts.princeton.edu/pcts>



Boost 2011

22-26 May 2011

PCTS – Jadwin Hall
Fourth Floor, Room 407

Organizers

Yuri Gershtein
Eva Halkiadakis
Valerie Halyo
Muge Karagoz
David Krohn
Mariangela Lisanti
James Olsen
Gavin Salam
Christopher Tully
Jay Wacker
Lian-Tao Wang

Sunday, 22 May 2011

- 9:00 – 9:30 “Overview of Boost 2010”
Marcel Vos
- 9:30 – 10:00 “Searches for boosted particles in CMS”
Ricardo Vasquez Sierra
- 10:00 – 10:30 “Measurements of jet substructure in ATLAS”
Adam Davison
- 10:30-10:55 **Coffee break**
- 10:55 – 11:45 Introductory Theory Talk
Dave Soper
- 11:45 – 1:30 **Lunch at PCTS**
- 1:30 – 2:00 “Status of the ATLAS experiment and recent results”
Kirill Prokofiev
- 2:00 – 2:30 “Status of Higgs and Top Taggers”
Tilman Plehn
- 2:30 – 2:55 **Coffee break**
- 2:55 – 3:15 “Gluon tagging at the LHC”
Jason Gallicchio
- 3:15 – 3:35 “Template method and color flow for top”
Seung Lee
- 3:35 – 3:55 “Jet substructure without trees”
Andrew Larkoski
- 3:55 – 4:15 “ISR Tagging”
David Krohn
- 4:15 – 4:45 “Tutorials on detector simulation tools”
Peter Loch
- 6:00–8:00 pm **OPENING RECEPTION, PCTS**

Monday, 23 May 2011

- 9:00 – 9:30 “Jets in ATLAS”
Mario Campanelli
- 9:30 – 9:50 “Jet Shapes in ATLAS and MC modeling”
Mario Martinez
- 9:50 – 10:15 “Jets and Jet Shapes at CMS”
Rahmat Rahmat
- 10:15 – 10:40 “Underlying Event and Fragmentation Models Tuning”
Rick Field
- 10:40-11:05 **Coffee break**
- 11:05 – 11:25 “Vincia”
Peter Skands
- 11:25 – 11:50 “Matrix Elements, Parton Showers and jet Merging”
Andrew Altheimer
- 11:50 – 2:00 **Lunch on your own.**
- 2:00 – 2:30 “Tutorial on new features in FastJet 3.0”
Gavin Salam
- 2:30 – 2:55 “Shower deconstruction”
Michael Spannowsky
- 2:55 – 3:20 “Jet substructure tools in CMS”
Salvatore Rappoccio
- 3:20 – 3:45 **Coffee break**
- 3:45 – 4:10 “Boosted top at Tevatron”
Pekka Sinervo
- 4:10 – 4:35 “Boosted top at ATLAS”
Miguel Villaplana
- 4:35 – 5:00 “Non-standard jets in ATLAS”
Lily Asquith
- 5:00 – 5:30 **FREE DISCUSSION**

Tuesday, 24 May, 2011

- 9:00 – 9:20 “N-subjettiness”
Jesse Thaler
- 9:40 – 10:00 “Stop reconstruction with HEPTopTagger”
Michihisa Takeuchi
- 10:00 – 10:20 “FB top asymmetry at LHC with HEPTopTagger”
Jessie Shelton
- 10:20-10:45 Coffee break**
- 10:45 – 11:05 “Heavy squarks”
Jiji Fan
- 11:05 – 11:25 “Color flow in ttbar events at D0”
Andy Haas
- 11:25 – 11:45 “Dipolarity”
Martin Jankowiak
- 11:45 – 12:05 “Top polarization”
Brock Tweedie
- 12:05 – 2:00 Lunch on your own.**
- 2:00 – 2:25 “Multi-variate overview”
Matthew Schwartz
- 2:25 – 2:55 “Tutorial on SpartyJet”
Chris Vermilion
- 2:55 – 3:20 Coffee break**
- 3:20 – 3:45 “Lepton jets”
Itay Yavin
- 3:45 – 4:10 “Leptonic Jets at CMS”
Alexei Safonov
- 4:10 – 4:35 “A Search for Low-Energy Leptons and Lepton Jets in W and Z Events at CDF”
Scott Wilbur
- 4:35 – 5:00 “Lepton Jets at ATLAS”
Emanuel Strauss

Wednesday, 25 May 2011

- 9:00 – 9:25 “Jet Masses at the LHC”
Mrinal Dasgupta
- 9:25 – 9:50 “Angularity/NGlogs in SCET”
Chris Lee
- 9:50 – 10:15 “Controlling jets with SCET”
Jonathan Walsh
- 10:15 – 10:40 “N-Jettiness & LHC Jet Masses at NNLL”
Iain Stewart
- 10:40 -11:05 Coffee break**
- 11:05 – 12:30 FREE DISCUSSION
- 12:30 – 2:00 Lunch on your own.**
- 2:00 – 2:25 “Boosted Higgs from SUSY”
Graham Kribs
- 2:25 – 2:50 “CDF multijets”
Eva Halkiadakis
- 2:50 – 3:15 “Search for New Physics in Multijets at CMS”
Amit Lath
- 3:15 – 3:40 “TBA”
Scott Thomas
- 3:40 – 4:05 Coffee break**
- 4:05 – 5:30 FREE DISCUSSION
- 7:00–10:00 BANQUET, PROSPECT HOUSE, PRINCETON CAMPUS**

Thursday, 26 May 2011

- 9:30 – 10:10 “Summary of Theoretical Progress on Jet Substructure”
Mike Seymour
- 10:10 – 10:50 “Summary of Experimental Progress on Jet Substructure”
Jon Butterworth