## Princeton Center for Theoretical Science

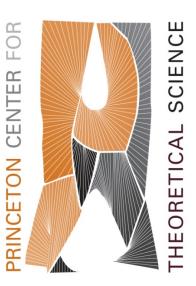
The Princeton Center for Theoretical Science is dedicated to exploring the frontiers of theory in the natural sciences. Its purpose is to promote interaction among theorists and seed new directions in research, especially in areas cutting across traditional disciplinary boundaries.

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
Andrei Bernevig
Duncan Haldane
Andrew Houk
Eve Ostriker
Thanos Panagiotopoulos
Frans Pretorius
Ned Wingreen

Center Postdoctoral Fellows
Ricard Alert-Zenon 2018-2021
Nathan Benjamin 2018-2021
Fani Dosopoulou 2018-2021
Anna Frishman 2016-2019
Daniel Lecoanet 2016-2019
Biao Lian 2017-2020
Abhinav Prem 2018-2021
Pierre Ronceray 2016-2019
Yizhi You 2017-2020
Xinan Zhou 2018-2021

To find out more about Center Postdoctoral Fellowships and Programs see: <a href="http://pcts.princeton.edu/pcts">http://pcts.princeton.edu/pcts</a>



## "Critical Phenomena in Statistical Mechanics and Quantum Field Theory" A Joint CRM-PCTS Workshop

This is a satellite event in association with XIX International Congress on Mathematical Physics

October 3-5, 2018

PCTS Seminar Room

Jadwin Hall, Fourth Floor, Room 407

Program Organizers
Michael Aizenman
Igor Klebanov
Silviu Pufu

## "Critical Phenomena in Statistical Mechanics and Quantum Field Theory"

10:50-11:20

Coffee break

"Critical Phenomena in	<b>Statistical Mechanics and Quantum</b>
Field Theory"	

	v, October 3, 2018		October 4, 2018 (cont.)
8:30 - 8:55 8:55-9:00	Light Breakfast Welcome/Introduction	11:20-12:15	The Tensor Track Vincent Rivasseau, Orsay
9:00-9:55	On a Mathematical Theory of Repeated Quantum Measurements	12:15-1:45	Lunch at PCTS
Vojkan Jaksic, McGill University		1:45-2:40	Effective Action in Tensor Field Theories Razvan Gurau, CNRS, Ecole Polytechnique
9:55-10:50	Lace Expansions  David Brydges, University of British Columbia	2:40-3:35	Origin of Magic Angles in Twisted Bilayer Graphene Grigory Tarnopolsky, Harvard University
10:50-11:20	Coffee break	3:35-3:55	Coffee Break
11:20-12:15	A New SU(2) Anomaly Edward Witten, IAS	4:00 - 5:00	Physics Colloquium—Room A-10 Jadwin Hall Critical Phenomena and the Conformal Bootstrap
12:15-2:00	Lunch at PCTS		David Poland, Yale University
2:00-2:55 Small Divisors, Diophantine Numbers and Interpretation Many Body Systems Vieri Mastropietro, University of Milan	Small Divisors, Diophantine Numbers and Interacting Quantum	Friday, October 5, 2018	
		8:30	Light Breakfast
2:55-3:50	Edge Universality in Interacting Topological Insulators  Marcello Porta, University of Tubingen	9:15-10:10	Walking, Weak First-Order Phase Transitions, and Complex CFTs Slava Rychkov, IHES
3:50-4:20	Coffee Break	10:10-11:05	Phase Diagrams for Melonic Tensor / Disordered Models
4:20-5:15	TBA		Fidel Schaposnik Massolo, IHES
	Scott Sheffield, MIT	11:05-11:35	Coffee break
5:30	WELCOME RECEPTION AT PCTS	11:35-12:30	6-Vertex Model, Lipschitz Functions, Proper Colorings and Other Lattice Models with Hard Constraints
Thursday, October 4, 2018			Ron Peled, Tel Aviv University
8:30	Light Breakfast	12:30-2:00	Lunch at PCTS
9:00-9:55	Renormalization Group Flows in Disordered Field Theories	12:30-2:00	Lunch at PC15
•	Ofer Aharony, Weizmann Institute	2:00-2:55	Random Band Matrices in the Delocalized Phase Paul Bourgade, NYU
9:55-10:50	Tying Up Instantons with Anti-Instantons in O(N) and CP^{N} Models		
	Nikita Nekrasov, Stony Brook	2:55 – 3:50	Traversable Wormholes  Juan Maldacena, IAS