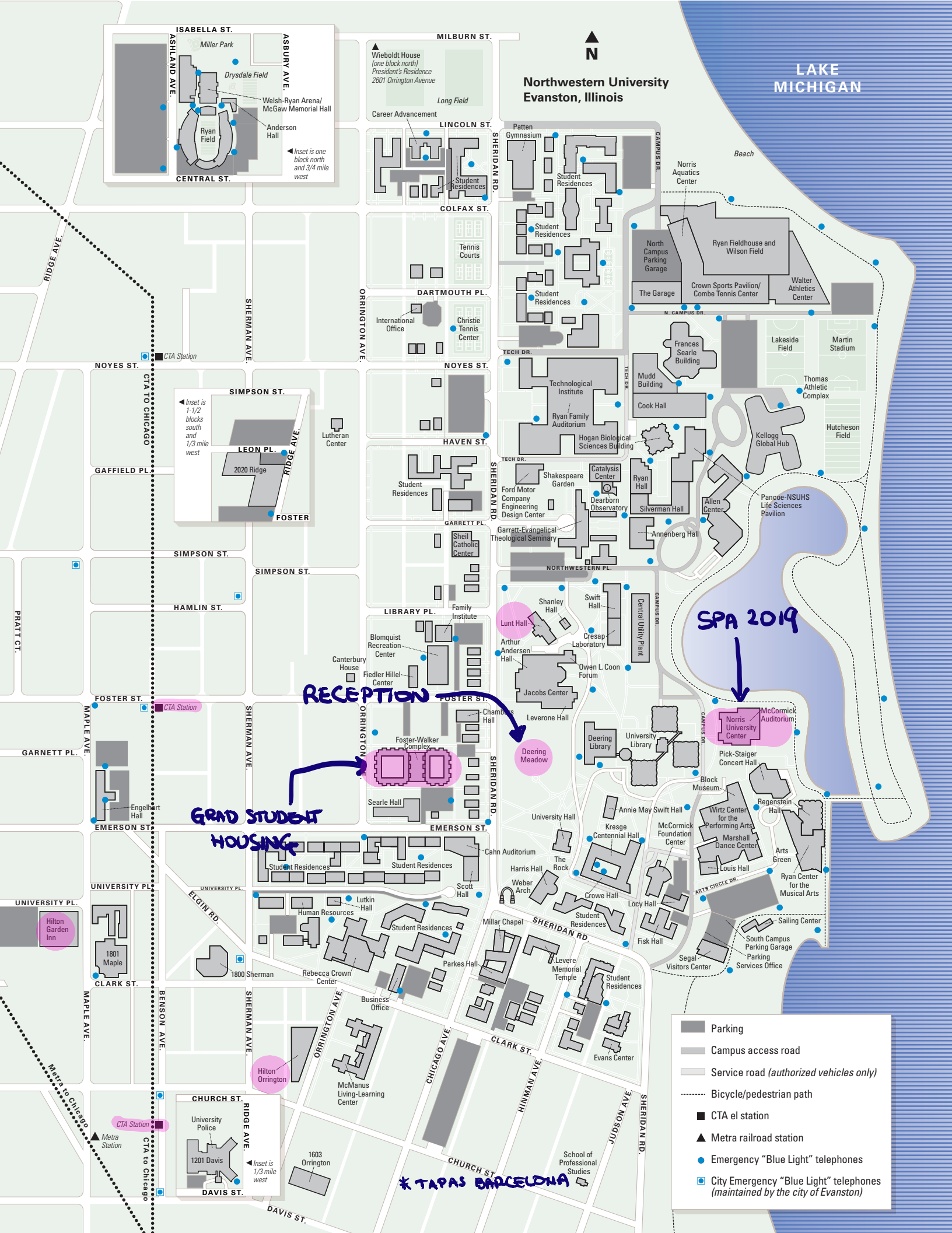


Northwestern.[®]
MATHEMATICS

SPA 2019 GUIDE

NORTHWESTERN UNIVERSITY
JULY 8TH - JULY 12TH, 2019



Northwestern University Evanston, Illinois

LAKE
MICHIGAN

SPA 2019

RECEPTION

GRAD STUDENT
HOUSING

* TAPAS BARCELONA

- Parking
- Campus access road
- Service road (authorized vehicles only)
- Bicycle/pedestrian path
- CTA el station
- Metra railroad station
- Emergency "Blue Light" telephones
- City Emergency "Blue Light" telephones (maintained by the city of Evanston)

SPA 2019 SCHEDULE

Monday (7/8)		Tuesday (7/9)		Wednesday (7/10)		Thursday (7/11)		Friday (1/12)
8:15 - 9:15	Registration	8:30 - 10:15	Random Trees (Goldschmidt) Spin Glasses (Arguin) Long term memory (Samorodnitsky)	8:30 - 9:30	de Tiliere	8:30 - 9:30	Lee	Ren
9:15 - 9:30	Opening Remarks							
9:30 - 10:30	Quastel (Doob Lecture)	10:15 - 10:45	Coffee break	9:30 - 10:30	Panchenko	9:30 - 10:30	Sly	Gubinelli (Levy)
10:30 - 11:00	Coffee break	10:45 - 12:30	GFF (Biskup) Stochastic dynamics (Duan) Branching Processes (Li) Contributed Sessions	10:30 - 11:00	Coffee break	10:30 - 11:00	Coffee break	Coffee break
11:00 - 12:00	Uhler			11:00 - 12:00	Burdzy (Medallion)	11:00 - 12:00	Pardoux (Medallion)	Chen (Itô)
		2:00 - 3:45	Potential theory (Kim) Percolation (Tassion) Stochastic Homogenization (Otto) Contributed Sessions			2:45 - 3:45	Miller (Doebelin Prize)	
2:45 - 3:45	Smirnov (Schramm Lecture)							
3:45 - 4:15	Coffee break	3:45 - 4:15	Coffee break	FREE		3:45 - 4:15	Coffee break	FREE
4:15 - 6:00	Biomedical applications (Roch) Nodal Structures (Wigman/Belyaev) Particle Systems (Goncalves) Contributed Sessions	4:15 - 6:00	SLE (Viklund) Rough Paths (Rosenbaum) Contributed Sessions Contributed Sessions			4:15 - 6:00	Random Walks (Nachmias) Random Topology (Bobrowski) Contributed Sessions Contributed Sessions	
6:00 - 8:30	Reception at Deering Meadows					6:30 - 10:00	Dinner at Tapas Barcelona (Ticket needed)	
	Plenary Lectures - McCormick Aud.							
	Invited Sessions							

MONDAY, JULY 8th

TIME	EVENT	LOCATION
8:15 - 9:15	Registration	2nd floor Norris Center
9:15 - 9:30	Opening Remarks	McCormick Auditorium
9:30 - 10:30	Quastel (Doob Lecture)	McCormick Auditorium
10:30 - 11:00	Coffee break	2nd floor Norris Center
11:00 - 12:00	Uhler	McCormick Auditorium
2:45 - 3:45	Smirnov (Schramm Lecture)	McCormick Auditorium
3:45 - 4:15	Coffee break	2nd floor Norris Center

4:15 - 6:00	Invited Sessions	
	Biomedical applications (Roch)	
4:15 - 4:45	Julia Palacios	McCormick Auditorium
	5 min break	
4:50 - 5:20	Lea Popovic	
	5 min break	
5:25 - 5:55	Rebecca Willett	

	Nodal Structures (Wigman/Belyaev)	
4:15 - 4:45	Steve Zelditch	Northwestern Room
	5 min break	
4:50 - 5:20	Marie Kratz	
	5 min break	
5:25 - 5:55	Igor Wigman	

6:00 - 8:30	RECEPTION AT DEERING MEADOWS	
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TIME	EVENT	LOCATION
	Particle Systems (Gonçalves)	
4:15 - 4:45	Otávio Menezes	Wildcat Room
	5 min break	
4:50 - 5:20	Nicolas Perkowski	
	5 min break	
5:25 - 5:55	Joe Chen	

	Contributed Sessions and Contributed Talks	
	SPDE (Balan)*	
4:15 - 4:30	Le Chen*	Lake Room
4:30 - 4:45	Fei Pu*	
	5 min break	
4:50 - 5:05	Luis Quer-Saranyons*	
5:05 - 5:20	Guangqu Zheng*	
	5 min break	
5:25 - 5:40	Raluca Balan	
5:40 - 5:55	Michael Choi	

4:15 - 4:30	Watthanan Jatuviriyapornchai	Arch Room
4:30 - 4:45	Vladimir Vinogradov	
	5 min break	
4:50 - 5:05	Francys Andrews de Souza	
5:05 - 5:20	Chris Scullard	
	5 min break	
5:25 - 5:40	Jie Yen Fan	
5:40 - 5:55	Alexander Roitershtein	

TUESDAY, JULY 9th

Invited Sessions			
	Wildcat Room	Northwestern Room	Lake Room
	Random Trees (Goldschmidt)	Spin Glasses (Arguin)	Long term memory (Samorodnitsky)
8:30 - 9:00	David Croydon	Qiang Zeng	Liudas Giraitis
9:05 - 9:35	Cécile Mailler	Michel Pain	Francois Roueff
9:40 - 10:10	Delphin Sénizergues	Nicholas Cook	Gennady Samorodnitsky
10:15 - 10:45	Coffee break		
	Stochastic dynamics (Duan)	GFF (Biskup)	Branching Processes (Li)
10:45 - 11:15	Konstantinos Spiliopoulos	Alexander Drewitz	Leif Döring
11:20 - 11:50	Changho Kim	Yoshihiro Abe	Hui He
11:55 - 12:25	Yong Chen	Santiago Saglietti	Chunhua Ma
	Potential theory (Kim)	Percolation (Tassion)	Stochastic Homogenization (Otto)
2:00 - 2:30	Moritz Kassmann	Michael Damron	Charles Smart
2:35 - 3:05	Tadeusz Kulczycki	Sébastien Martineau	Pierre-Francois Rodriguez
3:10 - 3:40	Renming Song	Subhjit Goswami	Martin Slowik
3:45 - 4:15	Coffee break		
	Rough Paths (Rosenbaum)	SLE (Viklund)	Contributed Sessions and Contributed Talks Inference for stochastic processes (Douissi)*
4:15 - 4:45	Christa Cuchiero	Eveliina Peltola	Igor Cialenco* Konstantinos Spillopoulos*
4:50 - 5:20	Rama Cont	Xin Sun	Soukaina Douissi* Fatimah Alshahrani*
5:25- 5:55	Mathieu Rosenbaum	Dapeng Zhan	Nathaniel Eldredge Jorg-Uwe Lobus
5:55 - 6:10			Guodong Pang

TUESDAY, JULY 9th

Contributed Sessions and Contributed Talks		
	Arch Room	Evans Room
	Biological and Stat. Appl. of Branching Proc. (Vidyashankar) *	
8:30 - 8:45	Maroussia Bojkova*	Jure Vogrinic
8:45 - 9:00	Cristina Gutierrez*	Hao Ge
9:05 - 9:20	Olivier Hyrien*	Huijie Qiao
9:20 - 9:35	Carmen Minusea Abril*	Matija Vidmar
9:40 - 9:55	Matthew Griffiths	Ziteng Cheng
9:55 - 10:10	Dan Daniel Erdmann-Pham	Eunghyun Lee
10:15 - 10:45	Coffee Break	
10:45 - 11:00	Omer Bobrowski	May-Ru Chen
11:00 - 11:15	Stefan Koch	Waisur Khuda Bukhsh
11:20 - 11:35	Louis Fan	Martina Favero
11:35 - 11:50	Wai-Kit Lam	Christina Tsai
11:55 - 12:10	Alexander Schnurr	Dong Yao
12:10 - 12:25	Jeff Kuan	Julia Gaudio
	Stochastic Population Models (Schweinsberg)*	
2:00 - 2:15	Maite Berenguer*	Sangjoon Lee
2:15 - 2:30	Sebastien Roch*	Adrian Falkowski
2:35 - 2:50	Verónica Miró Pina*	Jacek Malecki
2:50 - 3:05	Dang Nguyen*	Ma Elena Hernández
3:10 - 3:25	Jason Schweinsberg	Shota Osada
3:25 - 3:40	Laurence Field	Airam Blancas
3:45 - 4:15	Coffee Break	
	Interacting systems in stat. mech. (Jahnel/Kuelske)*	
4:15 - 4:30	Pierre Houdebert*	Matthieu Simon
4:30 - 4:45	Arnaud Le Ny*	Mateusz Topolewski
4:50 - 5:05	Christof Külske*	David Stenlund
5:05 - 5:20	Benedikt Jahnel*	David Barrera
5:25 - 5:40	Nobuaki Naganuma	Zhang Na
5:40 - 5:55	Praveen Kolli	Lucas Reding
5:55 - 6:10	Hugo de la Cruz	James Thompson

Wednesday, July 10th

	EVENT	LOCATION
8:30 - 9:30	de Tiliere	McCormick Auditorium
9:30 - 10:30	Panchenko	McCormick Auditorium
10:30 - 11:00	Coffee break	2nd floor Norris Center
11:00 - 12:00	Burdzy (Medallion Lecture)	McCormick Auditorium

FREE AFTERNOON

THURSDAY JULY 11th

TIME	SPEAKER	LOCATION
8:30 - 9:30	Lee	McCormick Auditorium
9:30 - 10:30	Sly	McCormick Auditorium
10:30 - 11:00	Coffee break	2nd floor Norris Center
11:00 - 12:00	Pardoux (Medallion Lecture)	McCormick Auditorium
2:45 - 3:45	Miller (Doebelin Prize)	McCormick Auditorium
3:45 - 4:15	Coffee break	2nd floor Norris Center
4:15 - 6:00	Invited Sessions	
	Random Walks (Nachmias)	
4:15 - 4:45	Ewain Gwynne	McCormick Auditorium
	5 min break	
4:50 - 5:20	Jonathan Hermon	
	5 min break	
5:25 - 5:55	Shirshendu Ganguly	Wildcat Room
	Random Topology (Bobrowski)	
4:15 - 4:45	Shmuel Weinberger	
	5 min break	
4:50 - 5:20	Takashi Owada	Wildcat Room
	5 min break	
5:25 - 5:55	Jean-Yves Welschinger	
6:30 - 10:00	DINNER AT TAPAS BARCELONA (\$40, tickets needed)	

TIME	SPEAKER	LOCATION
Contributed Sessions and Contributed Talks		
	Random Matrices (O'Rourke)*	
4:15 - 4:30	Indrajit Jana*	Northwestern Room
4:30 - 4:45	Tom Trogdon*	
	5 min break	
4:50 - 5:05	Hoi Nguyen*	
5:05 - 5:20	Gursharn Kaur	Lake Room
	5 min break	
5:25 - 5:40	Hyun-Jung Kim	
5:40 - 5:55	Dan Goreac	
5:55 - 6:10	Malkhaz Shashiashvili	Arch Room
	Dynamics of SPDE (Duan)*	
4:15 - 4:30	Jinqiao Duan*	
4:30 - 4:45	Jing Wang*	
	5 min break	Arch Room
4:50 - 5:05	Dimitar Atanasov	
5:05 - 5:20	Cristina Tone	
	5 min break	
5:25 - 5:40	Hyeun Lee	Arch Room
5:40 - 5:55	Pavel Chigansky	
5:55 - 6:10	Nicholas Georgiou	
4:15 - 4:30	Gleda Kutrolli	Arch Room
4:30 - 4:45	Vytaute Pilipauskaite	
	5 min break	
4:50 - 5:05	Chunxi Jiao	
5:05 - 5:20	Stephen Connor	Arch Room
	5 min break	
5:25 - 5:40	Christian Döbler	
5:40 - 5:55	Robert Baumgarth	
5:55 - 6:10	Christophe Biscio	

Friday, July 12th

EVENT

LOCATION

8:30 - 9:30

Ren

McCormick Auditorium

9:30 - 10:30

Gubinelli (Levy Lecture)

McCormick Auditorium

10:30 - 11:00

Coffee break

2nd floor Norris Center

11:00 - 12:00

Chen (Itô Lecture)

McCormick Auditorium

FREE AFTERNOON

SPA 2019 Scientific Program

Monday, July 8th

8:15 - 9:15 Registration, 2nd Floor Norris Center

9:15 - 9:30 Opening Remarks, McCormick Auditorium

9:30 - 10:30 Doob Lecture, McCormick Auditorium

Jeremy Quastel (University of Toronto, Canada)

Title: The KPZ fixed point

10:30 - 11:00 Coffee Break

11:00 - 12:00 Plenary Talk, McCormick Auditorium

Caroline Uhler (MIT, USA)

Title: Your dreams may come true with MTP2

2:45 - 3:45 Schramm Lecture, McCormick Auditorium

Stanislav Smirnov (Université de Genève and Skoltech, Switzerland, Russia)

Title: Percolation revisited

3:45 - 4:15 Coffee break

4:15 - 6:00 Invited Sessions and Contributed Talks

Invited Session: Biomedical applications, McCormick Auditorium

Organized by Sebastien Roch (University of Wisconsin, USA)

4:15 - 4:45 Julia Palacios (Stanford University, USA)

Title: Tajima Coalescent

4:50 - 5:20 Lea Popovic (Concordia University, Canada)

Title: Spatial effects in stochastic dynamics of gene regulation

5:25 - 5:55 Rebecca Willett (University of Chicago, USA)

Title: Estimating network structure from incomplete event data

Invited Session: Nodal structures of random and deterministic functions, Northwestern Room

Organized by Igor Wigman (King's College London, UK) and Dmitry Belyaev (University of Oxford).

4:15 - 4:45 Steve Zelditch (Northwestern University, USA)

Title: Equivariant random spherical harmonics on S^3 have just one nodal component and it is of near-maximal genus

4:50 - 5:20 Marie Kratz (ESSEC Business School, CREAR, France)

Title: On the regularity of functionals for stationary Gaussian processes

5:25 - 5:55 Igor Wigman (King's College London, UK)

Title: Mean conservation of nodal volume and connectivity measures for Gaussian ensembles

Invited Session: Fluctuations of interacting particle systems, Wildcat Room

Organized by Patrícia Gonçalves (IST-Lisbon, Portugal)

4:15 - 4:45 Otávio Menezes (IST-Lisbon, Portugal)

Title: Non-equilibrium fluctuations of interacting particle systems

4:50 - 5:20 Nicolas Perkowski (Humboldt Univ. Berlin, Germany)

Title: Energy solutions to the stochastic Burgers equation with Dirichlet boundary

5:25 - 5:55 Joe Chen (Colgate University, USA)

Title: Nonequilibrium fluctuations in the boundary-driven exclusion process on a resistance space

Contributed Session: SPDE, Lake Room

Organized by Raluca Balan (University of Ottawa, Canada)

4:15 - 4:30 Le Chen (University of Nevada, USA)

Title: Nonlinear stochastic partial differential equations with fractional operators

4:30 - 4:45 Fei Pu (University of Utah, USA)

Title: Optimal lower bounds on hitting probabilities for stochastic heat equations in spatial dimension $k \geq 1$

4:50 - 5:05 Luis Quer-Saranyons (Universitat Autònoma de Barcelona, Spain)

Title: SPDEs with fractional noise in space: continuity in law with respect to the Hurst index

5:05 - 5:20 Guangqu Zheng (University of Kansas, USA)

Title: Gaussian fluctuation of spatial average of some SPDEs

Contributed Talks, Lake Room

5:25 - 5:40 Raluca Balan (University of Ottawa, Canada)

Title: Stable Levy motion with values in the Skorohod space: construction and approximation

5:40 - 5:55 Michael Choi (City University of Hong Kong, Hong Kong)

Title: Accelerated simulated annealing with fast cooling

Contributed Talks, Arch Room

4:15 - 4:30 Watthanan Jatuviyapornchai (Mahidol University, Thailand)

Title: Coarsening dynamics in inclusion processes and duality

4:30 - 4:45 Vladimir Vinogradov (Ohio University, USA)

Title: On the law of the total progeny for some Galton-Watson processes

4:50 - 5:05 Francys Andrews de Souza (Unicamp, Brazil)

Title: Stochastic near-optimal controls for path-dependent systems and some applications

5:05 - 5:20 Chris Scullard (Lawrence Livermore National Laboratory, USA)

Title: The method of critical polynomials on supercomputers

5:25 - 5:40 Jie Yen Fan (Monash University, Australia)

Title: Age-and-type structured population model

5:40 - 5:55 Alexander Roitershtein (Texas A&M, USA)

Title: On ballistic deposition process on a strip

6:00 - 8:30 Reception, Deering Meadows

Tuesday, July 9th

8:30 - 10:10 Invited Sessions and Contributed Talks

Invited Session: Random Trees, Wildcat Room

Organized by Christina Goldschmidt (University of Oxford, UK)

8:30 - 9:00 David Croydon (RIMS, Japan)

Title: Quenched and averaged tails of the heat kernel of the two-dimensional uniform spanning tree

9:05 - 9:35 Cécille Mailler (University of Bath, UK)

Title: The monkey walk: a random walk with random reinforced relocations and fading memory

9:40 - 10:10 Delphin Sénizergues (Paris 13, France)

Title: Asymptotic properties of weighted recursive trees

Invited Session: Spin Glasses, Northwestern Room

Organized by Louis-Pierre Arguin (CUNY, USA)

8:30 - 9:00 Qiang Zeng (CUNY, USA)

Title: Properties of Parisi Measures

9:05 - 9:35 Michel Pain (ENS, France)

Title: Fluctuations of branching Brownian motion at criticality

9:40 - 10:10 Nicholas Cook (Stanford University, USA)

Title: Maximum of the characteristic polynomial for a random permutation matrix

Invited Session: Long Term Memory and applications, Lake Room

Organized by Gennady Samorodnitsky (Cornell University, USA)

8:30 - 9:00 Liudas Giraitis (Queen Mary, UK)

Title: Estimation pitfalls when the noise is not i.i.d.

9:05 - 9:35 François Roueff (Paris Tech, France)

Title: Spectral estimation for long range dependent discrete time trawl processes

9:40 - 10:10 Gennady Samorodnitsky (Cornell University, USA)

Title: Extreme Value Theory for Long Range Dependent Stable Random Field

Contributed Session: Biological and Statistical Applications of Branching Processes, Arch Room

Organized by Anand Vidyashankar (George Mason University, USA)

8:30 - 8:45 Maroussia Bojkova (Sofia University, Bulgaria)

Title: Stochastic monotonicity and continuity of general epidemics with vaccination control

8:45 - 9:00 Cristina Gutierrez Pérez (Universidad de Extremadura, Spain)

Title: A multitype branching process for modeling a Y-linked pedigree with non-syndromic hearing impairment

9:05 - 9:20 Olivier Hyrien (ENS, France)

Title: A Stochastic Evolutionary Model of Affinity Maturation

9:20 - 9:35 Carmen Minuesa (Universidad de Extremadura, Spain)

Title: Approximate Bayesian computation in controlled branching processes: the role of summary statistics

Contributed Talks, Arch Room

9:40 - 9:55 Matthew Griffiths (King's College London, UK)

Title: Cylindrical Lévy processes and Lévy space-time white noises

9:55 - 10:10 Dan Daniel Erdmann-Pham (UC Berkeley, USA)

Title: Generalized Greenwood Statistics and their Application to Two-Sample Testing

Contributed Talks, Evans Room

8:30 - 8:45 Jure Vogrinic (University of Warwick, UK)

Title: Anomalous scaling of the Metropolis Adjusted Langevin Algorithm

8:45 - 9:00 Hao Ge (Peking University, China)

Title: Nonequilibrium thermodynamic functionals of diffusion processes under first-order and second-order averaging

9:05 - 9:20 Huijie Qiao (Southeast University, China)

Title: Effective Filtering for Multiscale Stochastic Dynamical Systems driven by Lévy processes

9:20 - 9:35 Matija Vidmar (University of Ljubljana, Slovenia)

Title: Observing a Lévy process up to a stopping time

9:40 - 9:55 Ziteng Cheng (Illinois Institute of Technology, USA)

Title: Wiener-Hopf Factorization for Time-Inhomogeneous Finite Markov Chains

9:55 - 10:10 Eunghyun Lee (Nazarbayev University, Kazakhstan)

Title: Determinantal formulas in the multi-species integrable particle models

10:15 - 10:45 Coffee Break

10:45 - 12:25 Invited Sessions and Contributed Talks

Invited Session: Stochastic Dynamics, Wildcat Room

Organized by Jinqiao Duan (IIT, USA)

10:45 - 11:15 Konstantinos Spiliopoulos (Boston University, USA)

Title: Metastability and exit problems for systems of stochastic reaction-diffusion equations

11:20 - 11:50 Changho Kim (UC Merced, USA)

Title: Characterization of non-local and non-Markovian nature in the dynamics of a molecular fluid

11:55 - 12:25 Yong Chen (Zhejiang Sci-Tech University, China)

Title: Wave-breaking and moderate deviations of the stochastic Camassa-Holm with pure jump noise

Invited Session: Gaussian Free Field, Northwestern Room

Organized by Marek Biskup (UCLA, USA)

10:45 - 11:15 Alexander Drewitz (Universität zu Köln, Germany)
Title: Geometry of Gaussian free field sign clusters and random interlacements

11:20 - 11:50 Yoshihiro Abe (Chiba University, Japan)
Title: Exceptional points of two-dimensional random walks at multiples of the cover time

11:55 - 12:25 Santiago Saglietti (Technion Haifa, Israel)
Title: Weak convergence for the scaled cover time of the rooted binary tree

Invited Session: Branching Processes, Lake Room

Organized by Zenghu Li (Beijing Normal University, China)

10:45 - 11:15 Leif Döring (University of Mannheim, Germany)
Title: Boundary behaviour of stable jump-diffusions

10:20 - 11:50 Hui He (Beijing Normal University, China)
Title: TBA

11:55 - 12:25 Chunhua Ma (Nankai University, China)
Title: Coalescences in Continuous-State Branching Processes

Contributed Talks, Arch Room

10:45 - 11:00: Omer Bobrowski (Technion, Israel)
Title: Homological Connectivity in Random Čech Complexes

11:00 - 11:15: Stefan Koch (Mannheim University, Germany)
Title: Smooth dependence of fractional Brownian motion on its Hurst parameter and the limits of rough paths theory

11:20 - 11:35: Louis Fan (Indiana University, USA)
Title: Joint distribution of Busemann functions in the corner growth model

11:35 - 11:50: Wai-Kit Lam (University of Minnesota, USA)
Title: Universality for the time constant in 2D critical first-passage percolation

11:55 - 12:10: Alexander Schnurr (Universität Siegen, Germany)
Title: On Markov Processes with Killing and Semimartingales with Four Characteristics

12:10 - 12:25: Jeff Kuan (Texas A&M, USA)
Title: Markov duality and the KPZ equation

Contributed Talks, Evans Room

10:45 - 11:00: May-Ru Chen (National Sun Yat-sen University, Taiwan)
Title: On the cover times of the reflected-walk and the reflected Brownian motion

11:00 - 11:15: Waisur Khuda Bukhsh (The Ohio State University, USA)
Title: A Functional Central Limit Theorem for Susceptible-Infected (SI) Process on Configuration Model Graphs

11:20 - 11:35: Martina Favero (KTH Royal Institute of Technology, Sweden)
Title: A dual process for the coupled Wright-Fisher diffusion

11:35 - 11:50: Christian Tsai (National Taiwan University, Taiwan)

Title: On memory effect of sediment particle movement in turbulent flows by a random time interval Brownian motion model

11:55 - 12:10: Dong Yao (Duke University, USA)

Title: The symbiotic contact process

12:10 - 12:25: Julia Gaudio (MIT, USA)

Title: Attracting Random Walks

2:00 - 3:45 Invited Sessions and Contributed Talks

Invited Session: Potential Theory, Wildcat Room

Organized by Panki Kim (Seoul National University, South Korea)

2:00 - 2:30 Moritz Kassmann (Bielefeld University, Germany)

Title: Heat kernel bounds for symmetric Markov processes with singular jump measures

2:35 - 3:05 Tadeusz Kulczycki (Wrocław University of Science and Technology, Poland)

Title: Strong Feller property for SDEs driven by multiplicative cylindrical Lévy noise

3:10 - 3:40 Renming Song (University of Illinois at Urbana-Champaign, USA)

Title: Factorizations and estimates of Dirichlet heat kernels for non-local operators with critical killings

Invited Session: Percolation, Northwestern Room

Organized by Vincent Tassion (ETHZ, Switzerland)

2:00 - 2:30 Michael Damron (Georgia Tech, USA)

Title: Absence of backward infinite paths in first-passage percolation in arbitrary dimension

2:35 - 3:05 Sébastien Martineau (ENS - Lyon, France)

Title: Strict monotonicity of percolation thresholds under covering maps

3:10 - 3:40 Subhajit Goswami (Institut des Hautes Études Scientifiques, France)

Title: Equality of critical parameters for GFF level-set percolation

Invited Session: Stochastic Homogenization, Lake Room

Organized by Felix Otto (Max-Planck, Germany)

2:00 - 2:30 Charles Smart (University of Chicago, USA)

Title: Unique continuation and localization on the planar lattice

2:35 - 3:05 Pierre-Francois Rodriguez (ENS - Lyon, France)

Title: Random walk on dynamical percolation clusters

3:10 - 3:40 Martin Slowik (Technische Universität Berlin, Germany)

Title: Green kernel asymptotics for two-dimensional random walks among random conductances

Contributed Session: Stochastic Population Models, Arch Room

Organized by Jason Schweinsberg (UC San Diego, USA)

2:00 - 2:15 Maite Wilke Berenguer (Ruhr-Universität Bochum, Germany)

Title: Simultaneous migration in the seed bank coalescent

2:15 - 2:30 Sebastien Roch (University of Wisconsin, USA)

Title: Inferring the multispecies coalescent from average internode distances: some rigorous results

2:35 - 2:50 Verónica Miró Pina (UNAM, Mexico)

Title: The symmetric coalescent and Wright-Fisher models with bottlenecks

2:50 - 3:05 Dang Nguyen (University of Alabama, USA)

Title: Persistence and Extinction in Random Environments

Contributed Talks, Arch Room

3:10 - 3:25 Jason Schweinsberg (UC San Diego, USA)

Title: The nested Kingman coalescent: speed of coming down from infinity

3:25 - 3:40 Laurence Field (Australian National University, Australia)

Title: Length-biasing, pinning and unpinning for SLE

Contributed Talks, Evans Room

2:00 - 2:15 Sangjoon Lee (University of Connecticut, USA)

Title: Quasi-Limiting Behavior of a Drifted Brownian Process

2:15 - 2:30 Adrian Falkowski (Nicolaus Copernicus University, Poland)

Title: BSDEs with two barriers and generalized reflection

2:35 - 2:50 Jacek Malecki (Politechnika Wrocławska, Poland)

Title: Universality classes for general random matrix flows

2:50 - 3:05 Ma Elena Hernández-Hernández (University of Warwick, UK)

Title: Stochastic Optimal Control in Continuous time for general jump processes

3:10 - 3:25 Shota Osada (Kyushu University, Japan)

Title: Isomorphisms between determinantal point processes and Poisson point processes

3:25 - 3:40 Airam Blancas (Stanford University, USA)

Title: A general multispecies coalescent model of neutral evolution

3:45 - 4:15 Coffee Break

4:15 - 6:10 Invited Sessions and Contributed Talks

Invited Session Rough Paths, Wildcat Room

Organized by Mathieu Rosenbaum (Ecole Polytechnique, France)

4:15 - 4:45 Christa Cuchiero (Vienna University, Austria)

Title: Existence and stability for stochastic Volterra equations with jumps

4:50 - 5:20 Rama Cont (University of Oxford)

Title: Pathwise calculus for processes with irregular trajectories

5:25 - 5:50 Mathieu Rosenbaum (Ecole Polytechnique, France)

Title: From quadratic Hawkes processes to rough volatility and Zumbach effect

Invited Session: SLE, Northwestern Room

Organized by Fredrik Viklund (KTH, Sweden)

4:15 - 4:45 Eveliina Peltola (Université de Genève, Switzerland)

Title: Crossing probabilities of multiple Ising interfaces

4:50 - 5:20 Xin Sun (Columbia University, USA)

Title: Conformal embedding and percolation on the uniform triangulation

5:25 - 5:50 Dapeng Zhan (Michigan State, USA)

Title: Time-reversal of Multiple-force-point $SLE_{\kappa}(\underline{\rho})$ with All Force Points Lying on the Same Side

Contributed Session: Inference for stochastic processes, Lake Room

Organized by Soukaina Doussi (University Cadi Ayyad, Morocco)

4:15 - 4:30 Igor Cialenco (Illinois Institute of Technology, USA)

Title: Statistical inference problems for discretely sampled SPDEs

4:30 - 4:45 Konstantinos Spiliopoulos (Boston University, USA)

Title: Statistical Inference for Continuously- And Discretely-Observed Multiscale Diffusion Processes

4:50 - 5:05 Soukaina Doussi (University Cadi Ayyad, Morocco)

Title: Berry Esséen bound for mean-reversion estimator of an AR(1) process driven by a second chaos white noise

5:05 - 5:20 Fatimah Alshahrani (Michigan State University)

Title: Modeling Atlantic sea level rise as an AR(1) process with Gumbel innovations

Contributed Talks, Lake Room

5:25 - 5:40 Nathaniel Eldredge (University of Northern Colorado, USA)

Title: Uniform heat kernel estimates for left-invariant Brownian motion on Lie groups via uniform doubling

5:40 - 5:55 Jorg-Uwe Lobus (Martin-Luther-University Halle-Wittenberg, Germany, and University of Linköping, Sweden)

Title: Infinite dimensional Ornstein-Uhlenbeck processes with unbounded diffusion – quadratic variation, Itô formula, and generalizations

5:40 - 5:55 Guodong Pang (Penn State University)

Title: Generalized fractional Brownian motion as scaling limits of non-stationary shot noise processes

Contributed Session: Interacting systems in statistical mechanics, Arch Room

Organized by Benedikt Jahnel (WIAS, Germany) and Christof Külske (Ruhr Universität, Germany)

4:15 - 4:30 Pierre Houdebert (Universität Potsdam, Germany)

Title: Sharp phase transition for the Area-interaction and Widom-Rowlinson model

4:30 - 4:45 Arnaud Le Ny (Université Paris-Est, France)

Title: Random b.c. for long-range Dyson-Ising models

4:50 - 5:05 Christof Külske (Ruhr Universität, Germany)

Title: Time-evolved Widom-Rowlinson models in discrete geometries: hardcore vs softcore

5:05 - 5:20 Benedikt Jahnel (WIAS, Germany)

Title: Dynamical Gibbs-non-Gibbs transitions for the continuum Widom-Rowlinson model

Contributed Talks, Arch Room

5:25 - 5:40 Nobuaki Naganuma (Osaka University, Japan)

Title: Asymptotic expansion of the density for hypoelliptic rough differential equation

5:40 - 5:55 Praveen Kolli (Carnegie Mellon, USA)

Title: Large rank-based models with common noise

5:55 - 6:10 Hugo de la Cruz (EMAp/FGV, Brazil)

Title: A Random Differential Equation-based method for the pathwise simulation of the Stochastic Transport Equation

Contributed Talks, Evans Room

4:15 - 4:30 Matthieu Simon (The University of Melbourne, Australia)

Title: SIR epidemics with stochastic infectious periods

4:30 - 4:45 Mateusz Topolewski (Nicolaus Copernicus University, Poland)

Title: Systems of BSDEs with oblique reflection and related optimal switching problems

4:50 - 5:05 David Stenlund (Åbo Akademi University, Finland)

Title: Moments of Occupation Times for One-dimensional Diffusions

5:05 - 5:20 David Barrera (École Polytechnique, France)

Title: Generalization bounds for least-squares regression over independent samples

5:25 - 5:40 Zhang Na (University of Cincinnati, USA)

Title: Quenched Central Limit Theorem (CLT) for Random Fields

5:40 - 5:55 Lucas Reding (Université de Rouen Normandie, France)

Title: On kernel regression estimation for random fields

5:55 - 6:10 James Thompson (University of Luxembourg, Luxembourg)

Title: Functional inequalities for Feynman-Kac semigroups

Wednesday, July 10th

8:30 - 9:30 Plenary Lecture, McCormick Auditorium

Béatrice de Tilière (Université Dauphine, France)

Title: The Z-invariant Ising model via dimers & outlook

9:30 - 10:30 Plenary Lecture, McCormick Auditorium

Dmitry Panchenko (University of Toronto, Canada)

Title: Synchronization mechanism in spin glasses

10:30 - 11:00 Coffee Break

11:00 - 12:00 Medallion Lecture, McCormick Auditorium

Krzysztof Burdzy (University of Washington)

Title: On Archimedes' principle and Fermi acceleration

Free afternoon

Thursday, July 11th

8:30 - 9:30 Plenary Lecture, McCormick Auditorium

James R. Lee (University of Washington)

Title: Unimodular uniformization and random walks

9:30 - 10:30 Plenary Lecture, McCormick Auditorium

Allan Sly (Princeton University)

Title: The slow bond model with small perturbations

10:30 - 11:00 Coffee Break

11:00 - 12:00 Medallion Lecture, McCormick Auditorium

Etienne Pardoux (Aix-Marseille Université, France)

Title: Fluctuations around a law of large numbers and extinction of an endemic disease

2:45 - 3:45 Doeblin Prize Lecture, McCormick Auditorium

Jason Miller (University of Cambridge)

Title: Existence and uniqueness of the Liouville quantum gravity metric for $\gamma \in (0,2)$

3:45 - 4:15 Coffee break

4:15 - 6:00 Invited Sessions and Contributed Talks

Invited Session: Random Walks, Location: McCormick Auditorium

Organized by Assaf Nachmias (Tel Aviv University, Israel)

4:15 - 4:45 Ewain Gwynne (University of Cambridge, UK)

Title: Random walk on random planar maps via Liouville quantum gravity

4:50 - 5:20 Jonathan Hermon (University of Cambridge, UK)

Title: Anchored expansion in supercritical percolation on nonamenable graphs

5:25 - 5:55 Shirshendu Ganguly (University of Chicago, USA)

Title: Diffusive estimates for random walk under annealed polynomial growth

Invited Session: Random Topology, Northwestern Room

Organized by Omer Bobrowski

4:15 - 4:45 Shmuel Weinberger (University of Chicago)

Title: Random embeddings of manifolds

4:50 - 5:20 Takashi Owada (Purdue University, USA)

Title: Limit theorems for topological invariants of dynamic multi-parameter simplicial complex

5:25 - 5:55 Jean-Yves Welschinger (Université Lyon, France)

Title: TBA

Contributed Session: Random Matrices, Northwestern Room

Organized by Sean O'Rourke (UC Boulder, USA)

4:15 - 4:30 Indrajit Jana (Temple University, USA)

Title: CLT for non-Hermitian random band matrices with variance profiles

4:30 - 4:45 Hoi Nguyen (Ohio State University, USA)

Title: On random matrices over finite fields

4:50 - 5:05 Tom Trogdon (University of California, Irvine)

Title: The conjugate gradient algorithm on random matrices

Contributed Talks, Northwestern Room

5:05 - 5:20 Gursharn Kaur (National University of Singapore, Singapore)

Title: Interacting reinforcement on finite graphs

5:25 - 5:40 Hyun-Jung Kim (Illinois Institute of Technology, USA)

Title: Statistical Analysis of Evolution Equations Driven by Space-only Noise

5:40 - 5:55 Dan Goreac (Université Paris-Est, France)

Title: Order Avoidance for Controlled Systems; Impact on Gene Networks

5:55 – 6:10 Malkhaz Shashiashvili (Tbilisi State University, Georgia)

Title: Area Estimation between the Early Exercise Boundaries for the American Put Option with Different Local Volatilities

Contributed Session: Dynamics of SPDE, Lake Room

Organized by Jinqiao Duan (Illinois Institute of Technology, USA)

4:15 - 4:30 Jinqiao Duan (Illinois Institute of Technology, USA)

Title: Homogenization for Nonlocal Stochastic Partial Differential Equations

4:30 - 4:45 Jing Wang (Purdue University, USA)

Title: Graded large deviation principle for nilpotent hypoelliptic diffusion processes

Contributed Talks, Lake Room

4:50 - 5:05 Dimitar Atanasov (New Bulgarian University, Bulgaria)

Title: A robust approach for estimating the discrete time branching process with bivariate power series offspring distribution

5:05 - 5:20 Cristina Tone (University of Louisville, USA)

Title: A central limit theorem for non-stationary strongly mixing random fields

5:25 - 5:40 Hyoeun Lee (University of Illinois at Urbana-Champaign, USA)

Title: Optimal placement of a small order in a diffusive limit order book

5:40 - 5:55 Pavel Chigansky (The Hebrew University of Jerusalem, Israel)

Title: Accuracy in linear filtering with fractional noises

5:55 – 6:10 Nicholas Georgiou (Durham University, Georgia)

Title: Markov chains with heavy-tailed increments and asymptotically zero drift

Contributed Talks, Arch Room

4:15 - 4:30 Gleda Kutrolli (University of Tirana, Albania)

Title: Dynamic probabilistic forecasting with uncertainty

4:30 - 4:45 Vytaute Pilipauskaite (Aarhus University, Denmark)

Title: Aggregation of random-coefficient AR(1) processes with infinite variance

4:50 - 5:05 Chunxi Jiao (University of Sydney, Australia)

Title: Computable primal and dual bounds for stochastic control

5:05 - 5:20 Stephen Connor (University of York, UK)

Title: Cutoff for a One-sided Transposition Shuffle

5:25 - 5:40 Christian Döbler (University of Luxembourg, Luxembourg)

Title: Quantitative CLTs and FCLTs for U-statistics with applications

5:40 - 5:55 Robert Baumgarth (University of Luxembourg, Luxembourg)

Title: Scattering theory for the Hodge-Laplacian without assumption on the injectivity radius

5:55 - 6:10 Christophe Biscio (Aalborg University, Denmark)

Title: A general central limit theorem and subsampling variance estimator for α -mixing multivariate point processes

6:30 - 10:00 Dinner at Tapas Barcelona (ticket needed \$40).

Friday, July 12th

8:30 - 9:30 Plenary Lecture, McCormick Auditorium

Yan-Xia Ren (Peking University, China)

Title: Spine decompositions and limit results for models with branching structure

9:30 - 10:30 Lévy Lecture, McCormick Auditorium

Massimiliano Gubinelli (University of Bonn, Germany)

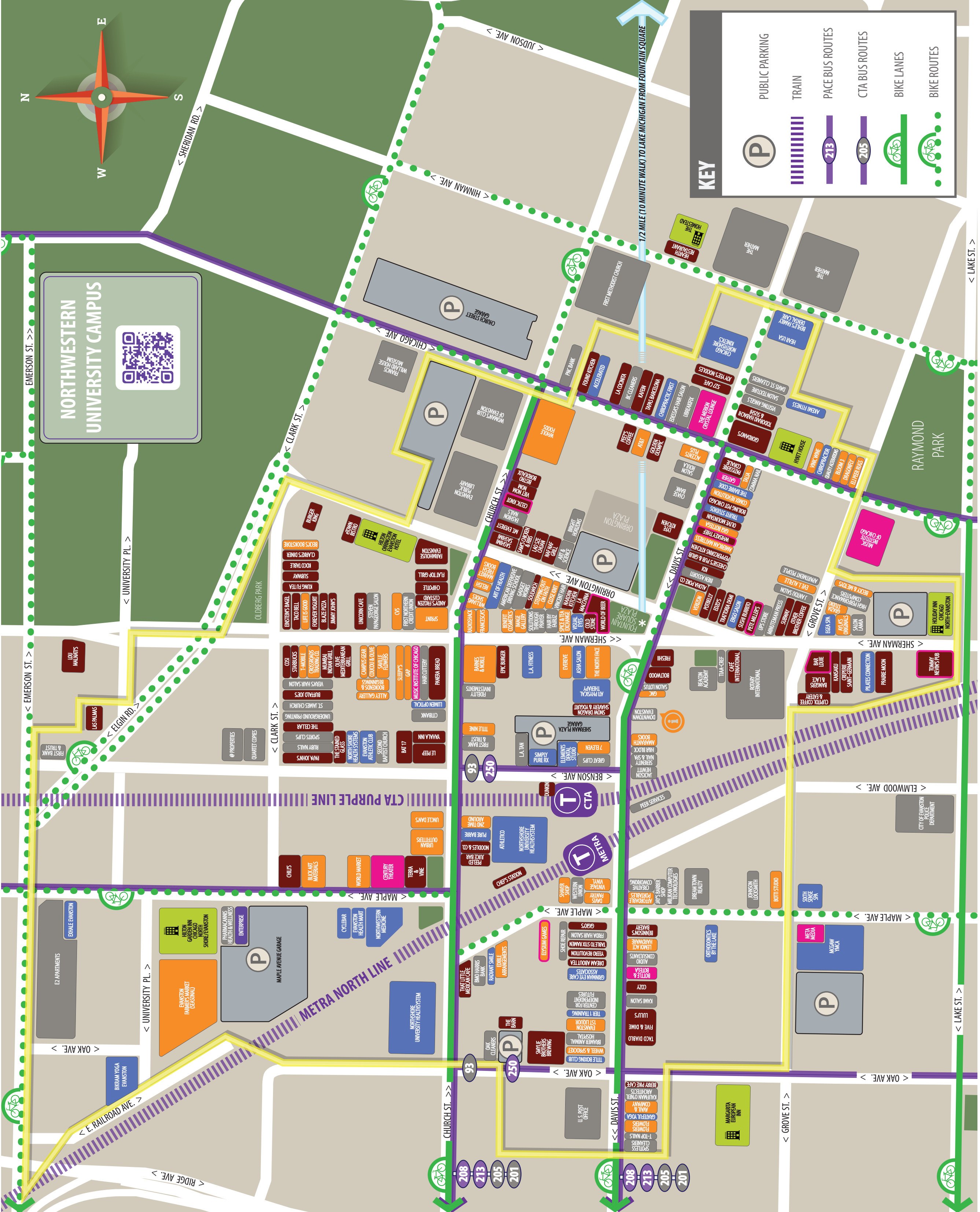
Title: Stochastic analysis and quantum fields

10:30 - 11:00 Coffee Break

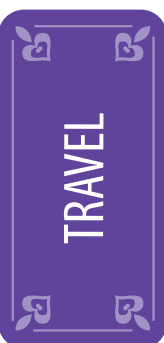
11:00 - 12:00 Itô Lecture, McCormick Auditorium

Zhen-Qing Chen (University of Washington), McCormick Auditorium

Title: Brownian motion with darning and stochastic Komatsu-Loewner equations



As of January 2017



EVANSTON MAP

M2



shopping districts

- A** Downtown Evanston
- B** Central Street
- C** Chicago & Dempster
- D** Main & Chicago
- E** Howard Street

attractions

- ★ Evanston Art Center
- ★ Evanston History Center/Dawes House
- ★ Frances E. Willard House
- ★ Grosse Point Lighthouse
- ★ Mary & Leigh Block Museum of Art
- ★ Northwestern University
- ★ Noyes Cultural Center
- ★ Rotary International Headquarters
- ★ Sigma Alpha Epsilon Levere Memorial Temple

recreation

- ▲ 10 Burnham Shore Park Dempster Street Beach Aquatic Center
- ▲ 11 Centennial Park Clark Street Beach
- ▲ 12 Dawes Park Greenwood Beach
- ▲ 13 Elliot Park Lee Street Beach
- ▲ 14 Evanston Wilmette Community Golf Course
- ▲ 15 Ladd Memorial Arboretum & Ecology Center
- ▲ 16 Lighthouse Landing Beach
- ▲ 17 Robert Crown Ice Complex & Community Center

hotels

- 18 Best Western University Plaza
- 19 Hilton Garden Inn Chicago North Shore/Evanston
- 20 Hilton Orrington/Evanston
- 21 The Homestead Evanston
- 22 The Margarita European Inn

legend

- CTA purple line stop
- CTA yellow line stop
- CTA red line stop
- Metra stop
- ⛶ hospital
- ⛳ golf course
- shopping districts

What to do

On campus

- Enjoy the Block Museum. Through exhibitions, educational programs, and its [Block Cinema](#) film series, the [Mary and Leigh Block Museum of Art](#) is where the Northwestern community experiences excellence in the visual arts without leaving campus.
- Enjoy Northwestern's fitness facility—the [Henry Crown Sports Pavilion, Norris Aquatics Center, and Combe Tennis Center](#)—including the Olympic-size pool, tennis courts, fitness classes, state-of-the-art exercise equipment, and a suspended track overlooking Lake Michigan. Find out more by visiting www.northwestern.edu/fitness-recreation.
- [Plan-it Purple](#) is constantly updated with all events that are hosted on the NU campus.

In the community

- Explore the picturesque town that hosts the conference venue. Evanston is a terrific town right outside of Chicago that has many shopping and dining locations in walking distance of campus. [Visit the Downtown Evanston website for more information.](#)
- Visitors are encouraged to sample the restaurants, theaters, shops, parks, and other attractions that Chicago has to offer. Selected destinations and events are highlighted at the [Chicago North Shore Convention and Visitors Bureau](#) and the [Chicago Office of Tourism](#).
- Do you feel like taking in some of Chicago's cultural offerings? There are an array of museums that house anything and everything.
 - [Shedd Aquarium](#)
 - [The Field Museum](#)
 - [The Art Institute of Chicago](#)
 - [Adler Planetarium](#)
 - [Museum of Science and Industry](#)
 - [Museum of Contemporary Art](#)
- Other recommended Chicago attractions:
 - [Chicago Architecture Boat Tours](#)— Starting at the dock by Trump Tower, this river boat tour provides a beautiful and unique setting to view and learn about the city's architectural heritage and history. Daily tours are at 10:30 a.m., 12:30 p.m., 2:30 p.m., 4:30 p.m. and 6:30 p.m. Additionally, tours leave at 9:30 a.m. on Saturday and Sunday. Tickets should be purchased in advance.
 - [Willis \(Sears\) Tower](#) is the tallest in the Western Hemisphere and attracts more than 1.3 million visitors each year. Venture onto The Ledge for a unique and daring view from 103 stories high. The Tower is open daily from 10 a.m. - 8 p.m.; tickets must be purchased at the door.
 - [Hancock Observatory](#) offers 360 degree views of the city from the Magnificent Mile in downtown Chicago. Night or day, a trip to the top is a great way to view the city. The observatory is open daily from 9 a.m. to 11 p.m. (last admission at 10:30 p.m.); tickets may be purchased at the door.
 - [The Second City](#) comedy theatre is the leader in improv-based sketch comedy. Legendary Second City alums include Bill Murray, Dan Akroyd, Tina Fey, Steve Carrell, and Stephen Colbert. Shows run at various times throughout the day; it is suggested to purchase tickets online in advance.
 - [Lincoln Park Zoo](#) provides free, family-friendly animal experience in the heart of Chicago. Visit lions, tigers, bears, (bulls), and more!