

Schedule

*All talks will take place in Room 112, Stevanovich Center for Financial Mathematics, 5727 S University Ave.

Saturday, May 9		
9:30am-10:30am	Coffee break	
10:30am-11:30am	Mike Hopkins	<p>Title: Algebraic and motivic vector bundles</p> <p>Abstract: I will describe recent joint work with Aravind Asok and Jean Fasel on the problem of finding algebraic structures on topological vector bundles.</p>
11:30am-1:30pm	Lunch break	
1:30pm-2:30pm	Amie Wilkinson	<p>Title: Asymmetrical diffeomorphisms</p> <p>Abstract: TBA</p>
2:45pm-3:45pm	Sarah Koch	<p>Title: Deforming rational maps and some topological questions in complex dynamics</p> <p>Abstract: Let S^2 be an oriented topological 2-sphere, and let $f : S^2 \rightarrow S^2$ be an orientation-preserving branched cover. Given finite sets $A, B \subseteq S^2$, under some mild conditions, we define a deformation space associated to $f : (S^2, A) \rightarrow (S^2, B)$. This deformation space is naturally a subset of a certain Teichmueller space. It follows from work of A. Epstein that the deformation space is either empty, or it is a complex manifold of dimension $B - A$. We discuss the topology of this space, and possible applications to tackling some fundamental topological questions that arise in complex dynamics, which are still unresolved.</p>
3:45pm-4:15pm	Coffee break	
4:15pm-5:15pm	Peter May	<p>Title: Equivariant infinite loop space theory</p> <p>Abstract: Around 45 years ago, infinite loop space theory showed how to construct spectra from space or category level data. This has had many concrete applications. It has also led to major changes in the theoretical foundations of algebraic topology and category theory. The equivariant analogue of that early theory started out around 25 years ago, but it is only now beginning to reach maturity. The equivariant story is much more difficult than the nonequivariant story, and it encodes far more varied structures. It promises many interesting future directions. I'll give a broad overview of this emerging subject, describing joint work with Bertrand Guillou, Mona Merling, and Angelica Osorno.</p>

Sunday, May 10		
9am-9:45am	Coffee break	
9:45am-10:45am	Tom Church	<p>Title: A survey of representation stability</p> <p>Abstract: I will give a gentle survey of the theory of representation stability, viewed through the lens of its applications in topology and elsewhere. These applications include: homological stability for configuration spaces of manifolds; understanding the stable (and unstable) homology of arithmetic lattices; Calegari-Emerton's description of Hecke eigenclasses in stable mod-p cohomology; uniform generators for congruence subgroups and "congruence" subgroups, and distributional stability for random squarefree polynomials over finite fields.</p>
11am-12pm	Hans-Werner Henn	<p>Title: Cohomology of groups and $K(2)$-local homotopy theory</p> <p>Abstract: $K(1)$-local homotopy theory is the part of stable homotopy theory which has been well understood for more than 30 years. It is closely related to understanding K-theory and the solution of the Adams conjecture. $K(2)$-local homotopy theory is the study of the next layer of complexity in stable homotopy theory. It is closely related to understanding topological modular forms. In this talk we will survey recent progress in our understanding of $K(2)$-local homotopy theory and we discuss the role of group cohomology in this progress.</p>
12pm-1:30pm	Lunch break	
1:30pm-2:30pm	Alejandro Adem	<p>Title: An Infinite Loop Space Associated to Commuting Matrices.</p> <p>Abstract: Let G denote a Lie group. We show that a construction introduced by Adem-Cohen-Torres built out of the commuting elements in G plays the role of a classifying space for commutativity. We will discuss how this is reflected in properties of these spaces and show that for the unitary group U we obtain a new infinite loop space. This leads to the notion of commutative K-theory, with characteristic classes computed using multisymmetric polynomials. This is joint work with Jos Manuel Gomez, John Lind and Ulrike Tillmann.</p>

Directions

By public transportation from Midway Airport

Follow the airport signs to the CTA Orange Line/transit center. At the transit center, walk outside to the CTA bus terminal and board the #55 Garfield bus. The bus runs east on 55th Street to the Museum of Science and Industry. Exit at the Ellis Avenue stop (you will see the Ratner Athletic Center on the corner). Walk south on Ellis Avenue towards the heart of campus.

By public transportation from O'Hare Airport

Take the CTA Blue Line train from the airport to the Jackson stop downtown. Exit the subway and walk one block east to State Street. Then take the #6 Jackson Park Express bus. Exit at Stony Island & 57th Street and head West on 57th Street for 0.5 miles. Turn left onto S University Ave.

By car from Lake Shore Drive

Exit at 57th Drive (the Museum of Science and Industry). Go west and curve around the museum. Take the fourth right onto the Midway Plaisance and go west to the campus.

By car from Indiana

Take I-65 N or I-80 W to the Skyway (I-90/94 W). Drive westbound on the Skyway, exiting at Stony Island. Drive north on Stony Island and turn left on 60th Street.

By car from the Dan Ryan Expressway (I-94)

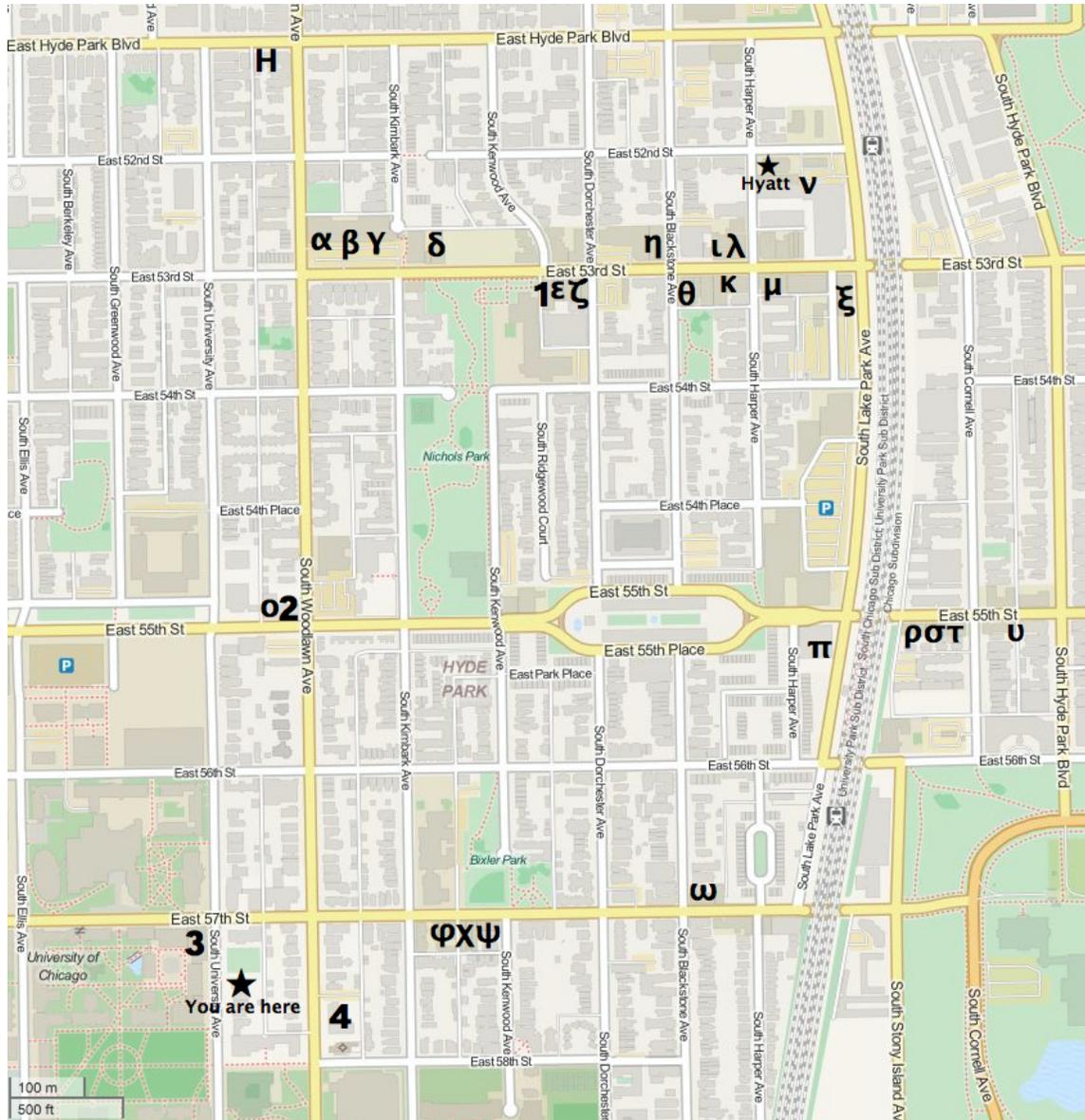
Exit at Garfield Blvd. (55th St.) and drive east, following the signs for 55th Street through Washington Park. Once you cross over Cottage Grove Avenue, the campus is on your right.

Parking

Free parking is available on the street and in the lot at 60th and Stony Island. Most University Parking Lots are free to the public after 4:00 pm on weekdays and all day on the weekends. During business hours, these lots do require a permit. The parking structure at 55th and Ellis Avenue charges a fee 24 hours a day or requires a permit. Other parking lots have different rules and regulations. Please call the Parking Office for more information at (773) 702-8969.

Parking rules are strictly enforced. Please observe all signs in parking areas and on the street.

Map and restaurants



• Coffee Places

1	Cafe 53	Coffee
2	Starbucks	“Coffee”
3	Einstein Bros Bagels (closes at 2)	Bagels and Coffee
4	Plein Air Cafe	Food and Coffee
φ	Z & H MarketCafe	Sandwiches and Coffee

• Restaurants On 53rd Street

α	Cedars Mediterranean Kitchen	Mediterranean
β	Harold’s Chicken	Fried Chicken
γ	Leona’s	American
δ	The Sit Down Cafe & Sushi Bar	Italian/Japanese
ϵ	LiteHouse Whole Food Grill	Healthy Food
ζ	Shinju Sushi	Japanese
θ	Giordano’s	Chicago Style Pizza
ι	Five Guys Burgers and Fries	Burgers and Fries
κ	Rajun Cajun	Indian
λ	A10	Fancy
μ	Pizza Capri	Italian
ν	Native Foods	Vegan
ξ	The Promontory	Fancy

• Restaurants On 55th Street

\omicron	Nile	Mediterranean
π	Maravillas	Mexican
ρ	Kikuya Japanese Restaurant	Japanese
σ	Cafe Corea	Korean
τ	Pho 55 Vietnamese Noodle and Grill	Vietnamese
υ	The Snail Thai Cuisine	Thai

• Restaurants On 57th Street

φ	Z & H MarketCafe	Sandwiches and Coffee
χ	Medici on 57th	American
ψ	Noodles Etc	Asian Noodles
ω	Salonica Restaurant	Greek