Midwest Dynamical Systems 2019

Department of Mathematics, University of Illinois at Chicago

November 1 - 3, 2019



The Midwest Dynamical Systems Conference is one of the most influential, diverse, and longest running conference series in dynamical systems. This conference series has met uninterruptedly since the early 1970's, and it has received continuous support from the National Science Foundation since 1988, including support for this meeting by NSF Grant DMS-1856176.

Mark your calendars! The *50th meeting* of the Midwest Dynamical Systems Conference will be held at Northwestern University in November 2020.

To join the MWDS mail-list, and to see past MWDS conferences and follow updates about the upcoming 50th celebration, visit the <u>Midwest Dynamical Systems' Homepage</u>

Location: All <u>Talks</u> are currently scheduled to be held <u>Room 636</u> of the Science and Engineering Offices (SEO) building.

The Teas before and between talks will be in Room 600 SEO.

SEO is located near the northeast corner of the intersection of Taylor and Morgan Streets. The Department of Mathematics, Statistics and Computer Science is located on floors 3—7 and 12 & 13 of SEO.

Visiting Directions to the UIC campus are available <u>here</u>, and an interactive map of the campus is <u>here</u>. A downloadable map of East Campus is <u>here</u>.

Timetable of Talks -- Abstracts

Friday November 1				
Time	Speaker	Title		

3-4 PM	<u>David Fisher,</u> Indiana University	Arithmeticity, Superrigidity and Totally Geodesic Submanifolds
4-5 PM	Colloquium Tea in 300 SEO	
	Saturday N	ovember 2
Time	Speaker	Title
8:30 AM	Coffee & Tea in 600 SEO	
9 - 10	<u>Ilya Khayutin,</u> Northwestern University	Equidistribution of Orthogonal Grids
10:15 - 11:15	Khadim War, University of Chicago	Margulis Estimates for Geodesic Flows on Surfaces Without Conjugate Points of Genus at Least Two
11:15 - 11:30	Coffee Break	
11:30 - 12:30	<u>Brandon Seward,</u> University of California San Diego	Borel asymptotic dimension and hyperfinite equivalence relations
12:30 - 2:30	LUNCH BREAK	
2:30 - 3:30	<u>Alena Erchenko</u> , SUNY Stony Brook	Flexibility of Lyapunov Exponents with Respect to Two Classes of Measures on The torus
3:30 - 4:30	Poster Session & Coffee Break	
4:30 - 5:30	Ralf Spatzier, University of Michigan	On Global Rigidity of Hyperbolic Higher Rank Commuting Actions
5:30-6:30 PM	Party in Room 600 SEO	
	Sunday No	ovember 3
Time	Speaker	Title
8:30 - 9	Coffee & Tea in 600 SEO	
9 - 10	<u>Nicole Looper</u> , Brown University	Global Quantitative Equidistribution and the Arithmetic of Points of Small Canonical Height
10 - 10:30 AM	Poster Session & Coffee Break	
10:30 - 11:30	<u>Kurt Vinhage</u> , Penn State University	New Progress on the Katok-Spatzier Conjecture
11:30 - 12:30	Alex Wright, University of Michigan	The Eierlegende-Wollmilchsau and the Classification of GL(2,R) Orbit Closures of Translation Surfaces

Poster Session:

There will be Poster Sessions on Saturday afternoon and Sunday morning, along the hallway between rooms 600 & 636 on the 6th Floor.

Here is the current list of Poster Titles and Abstracts.

If you are interested in presenting your work in the Poster Session, send an email with your title and abstract to mwdsuic2019@gmail.com.

Registration and Support:

There is no registration page *per se*, but please feel free to send us an email here mwdsuic2019@gmail.com, to say that you will attend, to help get an estimate for coffee and such for the meeting.

The conference is supported by NSF Grant DMS-1856176. There are funds available for participant support, which will be allocated in keeping with NSF guideline – students, recent PhDs, underrepresented groups, and people with no other federal support get priority. Requests for support should be sent to the email address mwdsuic2019@gmail.com

Reimbursement funding can only be provided with certainty for US citizens, permanent residence (Green Card) holders, those with an F1 (student) Visa, or if you are a Postdoc, Professor etc, at a US university. Instructions for reimbursement are on the <u>Welcome page</u>, <u>which is here</u>.

Local Organizers:

<u>Alex Furman</u>, <u>Steve Hurder</u>, <u>Wouter van Limbeek</u>. Email to mwdsuic2019@gmail.com if you have any questions about the meeting.

Accommodations: There are hundreds of hotels, hostels and airbnb offerings in the city.

There are three choices of accomodations which are walking distance to the UIC East Campus - the first three choices listed below are within a mile of the campus.

The <u>Halsted/UIC station</u> on the <u>CTA Blue Line</u> is on the north side of the UIC East campus, and is a 10 minute walk to the SEO building. If an accomodation is close to a CTA stop, then that is a convenient way to access the campus.

Finally, there is a campus parking garage at the corner of Halsted and Taylor Streets (760 West Taylor Street) that is a 5 minute walk to the SEO building, and costs just \$8/day for parking. So if you are driving, this is most convenient.

Chicago is a very large city! Be sure to check that the location of the hotel/hostel /rental is not so far from the UIC campus, by car or CTA train or bus. Ask an <u>organizer</u> about the location if in doubt.

Name	Comments
<u>Travelodge by</u> <u>Wyndham</u>	Located on East Harrison Street, about a 10-15 minute walk to the SEO building.
Crowne Plaza	Located in the Chicago West Loop on Halsted Street, about a 10-15 minute walk to the SEO building.
Hostelling International Chicago	Located in the heart of the Chicago Loop district on Congress Ave, about a 20 minute walk to the SEO building.
The Congress Plaza Hotel	Located on Michigan Ave, 3 blocks south from the Art Institute. About a 25 minute walk to the SEO building.
<u>Chicago Hostels</u>	There is a selection of hostels in Chicao as well.

Travel to UIC. There are lots of options, so easy in principle.

Driving: The UIC East campus was formerly known as The University of Illinois Chicago Circle, because it is located at the soutwest corner of the intersection of the Eisenhower (I290) and Kenedy/Dan Ryan Expressways (I90/94) and the combined ramps between these roads forms - a circle! Which is to say, it has reasonable easy access from these expressways. Due to construction though, some of these exit ramps are closed, so you need to get off somewhere near campus and then take Halsted or Harrison Streets to the campus. Check your GPS maps to be cautious.

Plane: Chicago has two airports, O'Hare and Midway. From either airport, a Taxi to downtown Chicago, or the UIC Campus will costs anywhere from \$40 to \$60, and is not even that fast.

The O'Hare Station of the CTA Blue line is located in the basement of the main terminal at O'Hare, and for \$2.50 you can take the train directly to the Halsted/UIC station. The trip is between 45 minutes and possibly more than an hour, depending on the time of day.

The <u>Midway Station</u> of the CTA Orange line goes from Midway Airport to the Loop in downtown Chicago. There you can get off for a hotel in the Loop, or transfer to the CTA Blue line to go to the <u>Halsted/UIC station</u>. The fare is still \$2.50 including transfer, so is one of the great bargains available in Chicago.

Bus: There is a <u>Greyhound Bus Station</u> on Harrision Street, almost adjacent to the <u>Travelodge by Wyndham</u>. The bus is a cheap and convenient way to get to UIC from Champaign/Urbana for example.

Bike: Chicago has a national reputation as one of the best large cities in the United States for bicycling. Indeed, getting around by bike is one of the big surprises when you visit Chicago, either with a rented <u>DIVVY Bike</u>, or with your own equipment. Plus, there are marked <u>Bike Trails</u> along the Lakefront and elsewhere which are spectacular and highly popular. One caution though: it sometimes seems that Biking in Chicago is a contact sport, so one really should mind the <u>Biking Rules of the Road</u> to stay Safe and Sound. Wouldn't want to miss any of the talks by being doored!

Restaurants: Chicago has grown into one of the top foodie cities in the world over the past 20-25 years. There are thousands of restaurant options in the city, of all types and price ranges. Some are accesible by foot from the UIC Campus — Greektown and its many restaurants on Halsted are a 10 minute walk north of campus, and there are French and Italian restaurants a 5 to 10 minute walk west on Taylor — but most require a car/taxi/Uber to get to them.

The first items on the following list are within a 10-minute walk from the SEO building, which would be convenient to visit for lunch. The other items are links to some web sites describing the many options available. The selection of lunch places is available for download here.

Name	Comments
<u>Tuscany</u>	Located at 1014 W. Taylor Street, serves up classic Italian cuisine in a proper restaurant setting. A 5 minute walk from the SEO building. A little pricy, but you will most likely have to take out the rest of your meal, or plan to sleep through the afternoon talks.
<u>Thai Bowl</u>	Located at 1049 W. Taylor Street, almost across from the Tuscany restaurant. Serves up hearty Thai dishes in a bowl, what else. Basic but tasty cuisine.
Al's Italian Beef	Located at 1079 W. Taylor, almost next to the Thai Bowl. A 5 minute walk from the SEO building. Get a combo Italian Beef & Sausage, plus the fries, and you are challenged to stay awake for the rest of the day. Classic Chicago food, before it all got fancified.
!DOF	"I Dream of Falafel" offers fresh mediterranean cuisine. Falafels, Kebabs, Vegan options. All top quality and tasty! Located at 1129 W. Taylor, just a half block west from Al's Beef, you don't get a greater contrast.
Khaosan and Taylor	Located at 1104 W. Taylor Street, a little further west than the above places. A Mom & Pop joint, with very tasty authentic Thai cuisine. Ask for a Very Hot dish, like 4/5 on their Hot Scale, and you may have to miss the afternoon talks. The Medical Center is about a mile away down Taylor Street, and they can fix you back up.
ML Kitchen	Located at 1138 W. Taylor Street, west of Khaosan and Taylor, and before Racine . ML Kitchen is a cornerstone in the Chicago community and has been recognized for its outstanding Chinese cuisine, excellent service and friendly staff.
Chez Joel Bistro	The tastes and aromas of France. Located at 1119 West Taylor, this is about a 10 minute walk west on Taylor Street from the SEO building. Straightforward, expertly prepared Southern French cuisine.
Tufano's Vernon Park Tap	Located at 1073 W. Vernon Park Place, just west from the main UIC library, serves up classic Italian cuisine in an intimate restaurant setting. A 5 minute walk from the SEO building. In 2008, Tufano's received American Classics Award from the

	James Beard Foundation.
Artopolis Bakery/Cafe /Agora	This is a gem of a place for lunch or coffee with cake. For lunch serves up very tasty Greek fare. The location at 306 S. Halsted is about a 15 minute walk north on Halsted from the SEO building, but worth the excursion!
Greek Islands	America's Most Popular Greek Restaurant! Located at 200 South Halsted Street, a block north of the Artopolis Cafe. This canonical Greek restaurant does it all the old-fashioned way - heaping plates of food, and wines of Monemvassia. No one leaves hungry!
Joy-Yee Noodles	Located at 1335 South Halsted Street, about a 10-15 minute walk south on Halsted from the SEO building. The walk is rewarded with a menu celebrated for it wonderful variety of Asian fusion dishes, with portions large enough to feed a graduate student for the weekend.
10 Best Restaurants	There are lots of "10 Best" web sites out there - this one is from Trip Advisor. Or just try googling what you like.
Vettel's 50 Best Restaurants	The 50 best from the Chicago Tribune Food Critic Phil Vettel. But caution - just browsing this list may cause you to change your prefered destination from Paris to Chicago!
ZAGAT 50 Best Restaurants	ZAGAT has their own opinion about what the 50 Best Restaurants are! Or rather, as they say: The people have spoken. This list is generated by customer reviews.

Last updated: October 31, 2019