

THE SUM TIMES



IN THIS ISSUE

MEET THE FIRST-YEAR
GRADUATE STUDENTS

SEMINAR
SCHEDULE

FALL RECIPES
(GET READY TO BAKE)

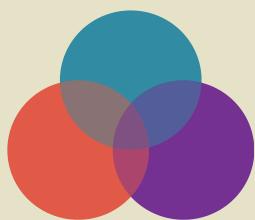
HEARTLAND TALKS!

ARTISAN TEXTILES FROM
KENYA

UPCOMING EVENTS



Congrats to those who took quals this summer!



PLEASE WELCOME THE FIRST YEARS!

We asked our fabulous first years about themselves, and they sent us some fantastic responses!

My name is Nikita Kapur, and I am in the AMCS program. My hometown is New Delhi, Delhi, India.

I got my B.Sc. (Honours) Math and M.Sc Math from University of Delhi, M.A. Mathematics from KU.

I decided to join Ulowa because my research interests changed from Algebra to Numerical Analysis (Numerical Linear Algebra).

My main research area is Numerical Analysis.

I have few hobbies like I am a bird watcher, I like to sketch, write poetry sometimes, and love to bake and cook.

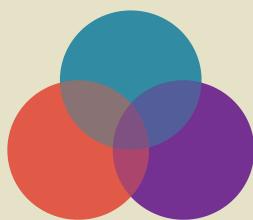
I haven't explored Iowa City much to have a favourite place, sorry.

I was settling in my new apartment over the summer.

I would like to pursue a career in academia after I graduate from Ulowa.



I'm Kitrick Fynaardt, I go by Kit. I'm from Orange City, Iowa, a mostly Dutch town in Northwest Iowa. I got my BS in math and computer science from Northwestern College, a small college based in Orange City. My father works there as an English professor, and my mother is the Vice President for Enrollment and Marketing. I chose Ulowa because it was close to my family, my girlfriend got a great job nearby (at North Liberty High School), and I loved the effort that Ulowa put into applicants even during lockdown. My main research interest is whatever is fun. I am open to new things but tend to enjoy analysis and number theory the most. My main hobby is gaming. I enjoy playing Super Smash Bros Melee and Genshin Impact. I am also a huge Dungeons and Dragons player. My favorite place in Iowa City has to be the Pentacrest as a whole. There are always so many students walking around, and the buildings look stunning. It really makes the place feel alive. Over the summer I worked in IT and reviewed some math. After I leave Ulowa, my goal is to become a math professor somewhere and connect with students about how they can be taught math better and apply those things throughout my life as an instructor.



PLEASE WELCOME THE FIRST YEARS! (CONT.)

My name is José David Beltrán. I'm from Bogotá-Colombia. I did my bachelor degree in Mathematics at the "Universidad Distrital Francisco José de Caldas" in Bogotá-Colombia, and I did a Master degree in Mathematics at the National University of Colombia. I applied to the University of Iowa for several reasons! First of all, I was attracted by the stimulating environment that The University of Iowa offers through its international programs. Secondly, the faculty of the Math department is highly qualified in many diverse fields and I found professors working in my field of interest that may advise and supervise me in the future! Finally, I was totally convinced that pursuing my doctoral studies here will open a wide spectrum of opportunities for my career! I'm mainly interested in Partial Differential Equations, more precisely in the study of hyperbolic conservation laws. I like to read and I love plants! I like to play the guitar and I also like cats a lot! I have been here for around a month and I don't know many places around the city. However, I love the Pentacrest! The amazing buildings and the nice green spaces that you can find around that place! This summer, I basically prepared everything to travel from my home country to Iowa City! Moving to a new country is something very exciting and demanding! I would like to teach! It has always been my dream to teach at a University. I plan to look for a Postdoc position if possible and to begin my teaching career in that way.



What is your name: Nicholas Cecil

What is your hometown: Catonsville, Maryland

From where did you get your previous degrees, and what are they: I did my undergrad at Reed College (BA in mathematics).

Why did you decide to come to U Iowa: The math program is strong in all the areas I am interested in and I liked what I saw of the culture in the math department.

What is your main research interest right now: My main research interest right now is topology.

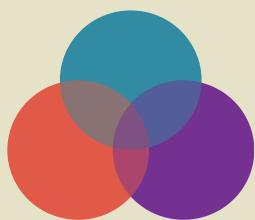
Do you have any hobbies? If so, what are they: I'm an avid sci-fi/fantasy reader (Wheel of Times, Cosmere, Yorkosigan Saga, etc.). I like to play chess, ski, and play magic the gathering.

What is your favorite place in Iowa City so far: I really enjoyed eating at Short's Burgers and Orchard Green.

What did you do over the summer: I went to the beach, enjoyed time with my family, and prepped for quals.

What do you want to do after you leave U Iowa: I want to be a math professor.



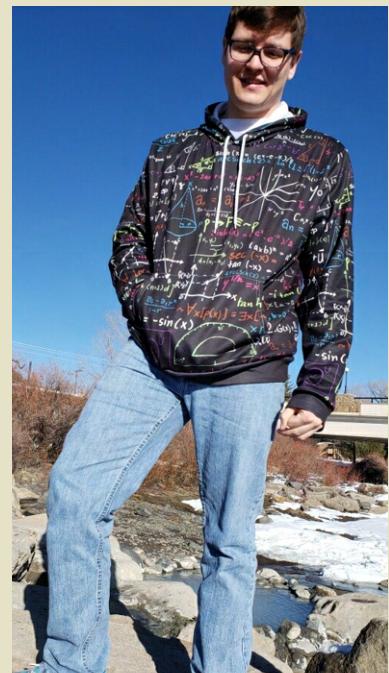


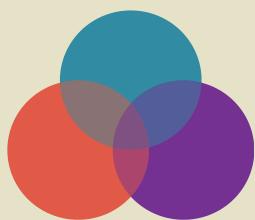
PLEASE WELCOME THE FIRST YEARS! (CONT.)



My name is Juan Felipe Ariza Mejia. I come from Bogota, Colombia. I got a BSc in Math and BSc in Physics from Universidad de los Andes in Bogota, and a master's in Pure Math from the University of Waterloo in Canada. The student atmosphere and the professors in my area of interest are the reasons I decided to come here. Currently, my main research interest is operator algebras. I don't have many hobbies right now, but I used to play guitar and play tennis. No favorite place yet, I need to explore more. I spent this summer getting ready for moving and preparing for quals, but also spending a lot of time with my partner. I would love to get a tenure track faculty position.

My name is Garrett Mason, I was born and raised in Shreveport, Louisiana. I received my bachelors from Texas A&M University-Texarkana. I got my bachelor's in electrical engineering and a bachelor's in mathematics. I came to UIowa for multiple reasons. The atmosphere on campus and around the city sounded so nice, the courses offered sounded interesting to me, and I desperately wanted to leave the southern heat and humidity. Right now, I don't have a particular interest, I just know I enjoyed modeling and differential equations in undergrad, so I plan on looking into mathematical biology and more differential equations courses to see if either of those are the route I want to take. For hobbies I like playing games. My girlfriend and I play chess and mancala often enough, and I really enjoy playing video games as well. When I get to know more people, I also like to participate in team sports, ultimate frisbee and flag football being favorites of mine (I also like soccer and basketball, but I am definitely not good at either). I also have hobbies I would like to develop more. I want to get into reading more for fun (I recently have read a few scifi and fantasy books), and I want to get into nature more by taking hikes, tubing, kayaking, and hopefully skiing (never done that before). I haven't explored as much as I would like to yet, but so far I really like the farmer's market; and my girlfriend and I really like Wig and Pen when we want pizza. Over the summer I mainly tutored at my undergrad campus. But my girlfriend and I took a trip where we explored Cocoa Beach Florida, then went to Universal Studios for a few days, and then rounded out the trip with a couple nights in New Orleans. Other than that, we went to a few locations with a small group of friends to tube or kayak (the best location we went to was in San Marcos, Texas). Because I don't know my exact interest area, I don't have a specific job in mind, but I would like to go into industry after graduating. However, I am keeping teaching as a back-up plan (I was always told at my undergrad institution that I should be a professor).





PLEASE WELCOME THE FIRST YEARS! (CONT.)

What is your name?

Yuan Yao

What is your hometown?

Suzhou, China

From where did you get your previous degrees, and what are they?

Bachelor degree in Nantong University

Master degree in Suzhou University

Why did you decide to come to Ulowa?

UI is a nice university with peace and harmony environment. AMCS in UI is also one of the best departments in the U.S.A.

What is your main research interest right now?

Numerical Analysis and Numerical Methods

Do you have any hobbies? If so, what are they?

Swimming, playing badminton, Computer games.

What is your favorite place in Iowa City so far?

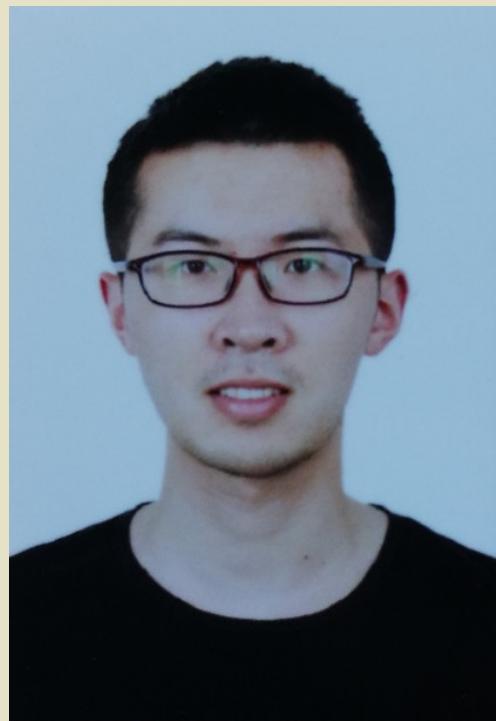
University Capitol Centre.

What did you do over the summer?

I taught Mathematics in a Middle School in China.

What do you want to do after you leave Ulowa?

I plan to continue to do some research in the United States.



What is your name?

Claire Christian

What is your hometown?

Kiester, Minnesota

From where did you get your previous degrees, and what are they?

BA in Mathematics from Luther College

Why did you decide to come to Ulowa?

I realized that I didn't want to continue teaching high school, so I decided to go back to school. I have lived here for a while and like Iowa City, so I was happy to stay in the area.

What is your main research interest right now?

I haven't fully decided, but I'm interested in math bio!

Do you have any hobbies? If so, what are they?

I coach women's tennis at Coe College and participate in CrossFit.

What is your favorite place in Iowa City so far?

I don't have a favorite, but I love trying out new restaurants in the area.

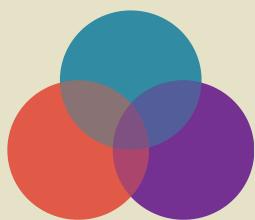
What did you do over the summer?

I played a lot of golf and went on vacation!

What do you want to do after you leave Ulowa?

I'm interested in becoming a professor! I still love teaching, but I'd like to do it at a higher level.





PLEASE WELCOME THE FIRST YEARS! (CONT.)

What is your name? Michele Capovilla-Searle

What is your hometown?

Cuernavaca, Morelos, Mexico

From where did you get your previous degrees, and what are they? Case Western Reserve University, Bachelor of Arts and Science for Math in Cleveland, Ohio.

Why did you decide to come to Ulowa? The RTG Topology group.

What is your main research interest right now? Low-dimensional topology.

Do you have any hobbies? If so, what are they? Cooking, watching movies and melodramas.

What is your favorite place in Iowa City so far? Prairie Lights Coffee Shop

What did you do over the summer? Qual Prep courses.

Traveled to California to help my sister move for a post doc, then visited Mexico to see family.

What do you want to do after you leave Ulowa? I plan to stay in academia, and hope to get a post-doc.



What is your name?

Shashank Pratap Singh

What is your hometown?

Gwalior, India

From where did you get your previous degrees, and what are they?

BS-MS dual degree from Indian Institute of Science Education and Research, Pune

What is your main research interest right now?

Algebraic Number Theory, Arithmetic Geometry

Do you have any hobbies? If so, what are they?

I feel like I'm interested in everything and passionate about nothing. If that doesn't work as an answer, I am into cycling, swimming, trekking. I occasionally dabble in art - sketching/painting, be it digital or physical. I also play video games.

What is your favorite place in Iowa City so far?

My home.

What did you do over the summer?

Recovered from Covid, mostly.

What do you want to do after you leave Ulowa?

I don't know yet.

What is your name?

Joe Starr

What is your hometown?

Plymouth MI

From where did you get your previous degrees, and what are they?

BS Math

BS Computer Science

Both from University of Michigan Dearborn

Why did you decide to come to Ulowa? I picked Iowa to work with the Topology group.

What is your main research interest right now?

Low dimensional topology. I like to work with pictures.

Do you have any hobbies? If so, what are they?

My wife and I spend time hanging out playing video games.

What is your favorite place in Iowa City so far?

Mesa Pizza

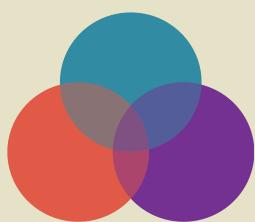
What did you do over the summer?

Moved to Iowa.

What do you want to do after you leave Ulowa?

My goal is to find a university research position.





PLEASE WELCOME THE FIRST YEARS! (CONT.)

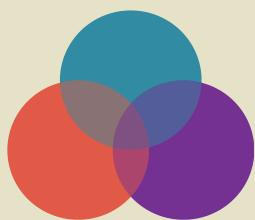


Last, but certainly not least: these gems joined the math department in January 2021. ☺

My name is Sreshta Venkatakrishnan. I come from a small city from the state of Tamil Nadu in the southern part of India. I completed my BS-MS Dual Degree majoring in Mathematics from the Indian Institute of Science Education and Research (IISER) - Bhopal, India, before arriving here at Iowa City. When I started on my application process for a PhD, I knew that I wanted to do research in an area that involved Functional Analysis. So, I applied to a few universities in the US which had a good Functional Analysis research group. I chose to join Ulowa because the math department here seemed to be very supportive and encouraging (which I can now proudly confirm is true!). I still stand by my initial choice of working in an area that involves Functional Analysis, but so far, I have not been able to narrow it down to a specific topic yet. Although, I have been very interested in Operator Theory and Operator Algebras, so it is very likely that I might end up choosing one of those two paths! I love reading!! But it is unfortunate that I have had to stop myself from starting on a book for a while now, since I get so immersed in anything I am reading at the moment that I tend to forget everything else altogether ☺ I also like to sing sometimes, though just as a hobby - I haven't really done a lot to polish my singing! I have not explored much of whatever Iowa City has to offer yet, so perhaps it is still too early for me to name a place as my favorite here... I spent a part of my summer teaching and a part of it preparing for the qualifiers. I have not paid much thought to this yet, but for now, I think I want to continue down the research line and be a post-doctoral fellow somewhere, once I complete my PhD here at Ulowa!



Name : "Steven Un"
Hometown: "Livingston, NJ"
Previous degrees: "B.A. Mathematics, Rutgers University- New Brunswick"
Why Iowa: "Staying in BIG 10 country!"
Research: "Mathematical Analysis"
Hobbies: "Running"
Favorite place in Iowa City: "Music building"
What I did this summer: "Studied for quals and just chilled some times"
After Iowa: "Chill in academia or industry or both"



EVENTS TO LOOK OUT FOR!

Geometry and Topology Colloquium Talks

October 13 & 14

November 3 & 4

Location TBD

(tentative design for the back of the shirt)

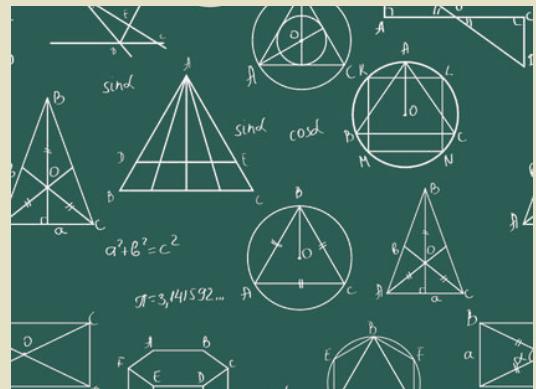


MGB Meetings In Person!

1st Monday of the Month

5 pm

Location TBD



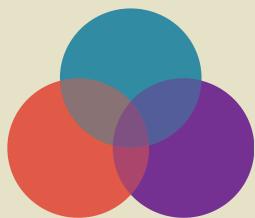
MGB T-Shirt Sale!

Be on the lookout for an email
on October 1st to order shirts!



Fall Picnic
Halloween Candygrams
Secret Santa

Dates TBD



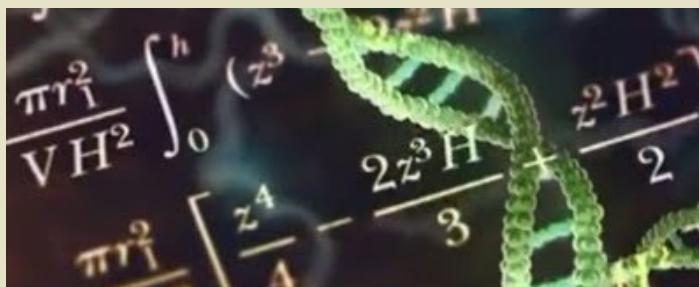
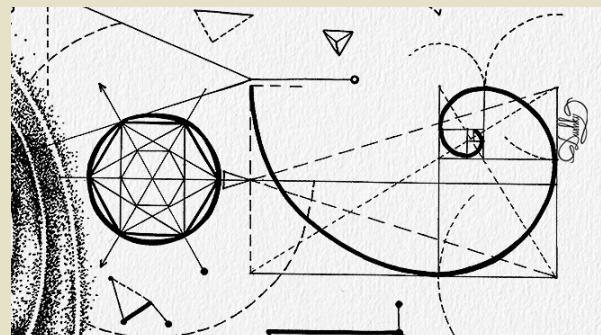
SEMINARS GALORE!

Mondays:

Algebra:

3:30 - 4:20 pm
210 MLH

[https://uiowa.zoom.us/j/95304783547?
pwd=SGIYRHBlc0dmbDc0Y2R4eSt4cGdKQT09](https://uiowa.zoom.us/j/95304783547?pwd=SGIYRHBlc0dmbDc0Y2R4eSt4cGdKQT09)



Math Bio:

3:30 - 4:30 pm
105 MLH

<https://uiowa.zoom.us/j/96720583105>

Tuesdays:

Number Theory:

12:30 - 1:30 pm
177 SH

Operator Theory:

1:30 - 2:20 pm
309 VAN

Topology Reading:

2:30 - 3:30 pm
214 MLH

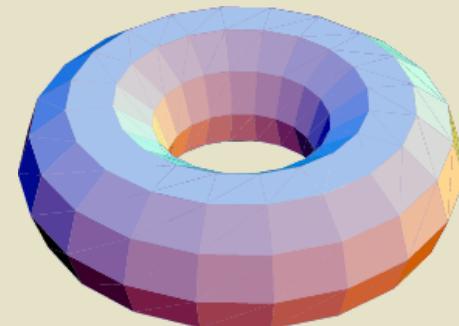
Zoom ID: 929 0186 1177



Math Physics:

2:30 - 3:20 pm
309 VAN

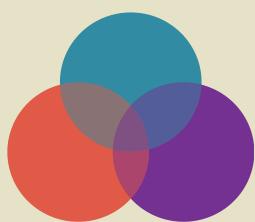
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GAUSS:

3:30 - 4:20 pm
176 SH

[https://uiowa.zoom.us/j/93192964149?
pwd=WnA2cTdIT0RrR3hEeIRZcG5rQk8rZz09](https://uiowa.zoom.us/j/93192964149?pwd=WnA2cTdIT0RrR3hEeIRZcG5rQk8rZz09)



SEMINARS GALORE!

[CONT.]

Wednesdays:

PDE:

3:30 - 4:30 pm

105 MLH

<https://uiowa.zoom.us/j/99262723156>



Thursdays:

Topology:

2:30 - 3:30 pm

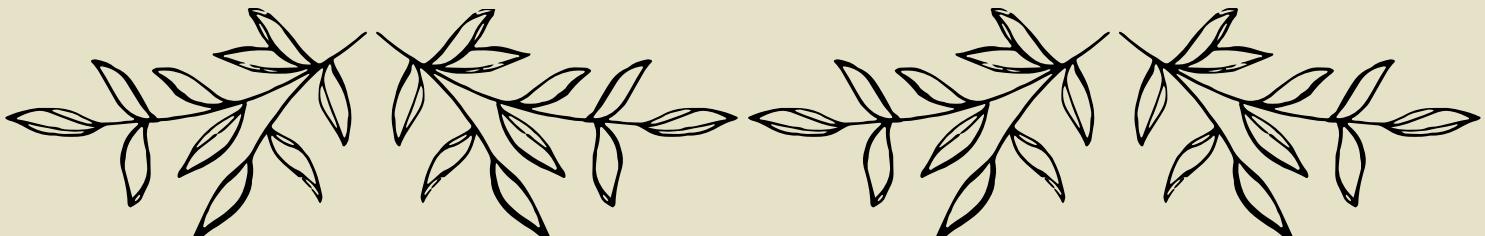
214 MLH

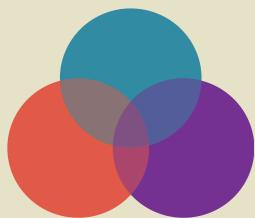
Differential Geometry:

1 - 2 pm

B13 MLH

[https://uiowa.zoom.us/j/97559808868?
pwd=UlpKeGtoVnpnOGlyZ0dEZnoyVFAxZz09](https://uiowa.zoom.us/j/97559808868?pwd=UlpKeGtoVnpnOGlyZ0dEZnoyVFAxZz09)





HEARTLAND TALKS

Are you interested in giving a Heartland talk this semester? Email me (joseph-sauder@uiowa.edu) and I'll work to connect you with one of our fourteen Heartland schools in the Midwest! There is more information about the Heartland Partnership below. There are also other schools that have expressed interest in Heartland talks that you can give talks at (Winona State, UW- Platteville, Kirkwood Community College).

I have reached out and many of the Heartland Schools are extremely interested in hearing from us. Please consider giving a talk!

When should you email me?

ASAP. I will be accepting emails for talks until October. If you have an idea for a talk, but need some more time to write it all up, please let me know!

What schools might you talk at?

See here: <https://sites.google.com/site/uiowamgb/home/heartland/schools>

What could you talk about?

You can talk about ANYTHING! Talks are typically given to math clubs and have included topics such as whether a burrito is a sandwich, cryptography, introduction to knot theory, topological data analysis, etc.

Why should you give a talk?

This opportunity will help you practice your talk-giving abilities, give you a chance to network with these schools, boost your CV, and motivate undergrads into thinking about grad school and getting excited about doing math!

Other questions?

Email me!

Thanks!

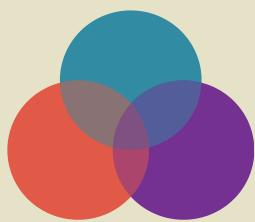
Joseph Sauder

(Heartland Chair MGB)

"The Heartland Partnership is a collection of schools in the Midwest that have come together in order to help each other.

One way Heartland schools work together is to arrange Heartland visits. This usually consists of two University of Iowa graduate students, one speaker and one support, who travel to a Heartland school and give a math talk. The subject area and level of these talks vary, and can be negotiated. Such talks often serve as the school's math club talk. After the talk is over, many schools like to hold a short Q&A about what life is like as a graduate student at the University of Iowa.

Heartland visits serve to better integrate faculty and graduate students here at Iowa with those at the Heartland Schools. Heartland students get a chance to learn about graduate school in mathematics and to form connections with current Mathematics graduate students, which we hope will excite them about math. Our graduate students also benefit from the practice of giving a talk and also forming connections with professors and students at the schools."



TEXTILES FROM KENYA!

Are you on the hunt for some unique, eco-friendly reusable bags? Or searching for fleece blankets for the upcoming colder seasons? Perhaps you're taking advantage of our beautiful weather and would like a picnic blanket for enjoying sunsets on the quad! Or maybe you're like me and you thrive on a little retail therapy.

Well you have come to the right place!

Violet is selling handmade bags, blankets, and pouches from Kenya! The prices range from \$20 to \$30. Please reach out to Violet at violet-tiema@uiowa.edu if you would like to purchase some of these beautiful pieces!

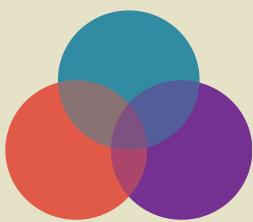


[these blankets come in a variety of colors and textures!]

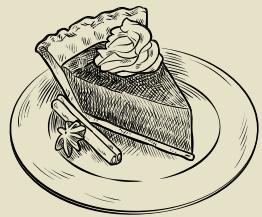
[some adorable pouches ☺]



[these bags will turn heads at the farmer's market]



SWEET TREATS



Salted Caramel Apple Galette

Ingredients

Crust:

- 1 and 1/2 cups (188g) all-purpose flour (spoon & leveled), plus more for work surface
- 1/4 cup (50g) granulated sugar
- 1/4 teaspoon salt
- 1/2 cup (115g; 1 stick) cold unsalted butter, cubed
- 1/4 cup (60ml) ice cold water

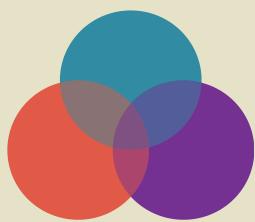
Filling & Topping:

- 2 – 3 large apples, peeled and sliced into 1/4 inch slices (about 4–5 cups slices)
- 1/4 cup (50g) packed light or dark brown sugar
- 1 and 1/2 Tablespoons (12g) all-purpose flour
- 2 teaspoons fresh lemon juice (to prevent apple browning)
- 1 teaspoon ground cinnamon
- 1/4 teaspoon ground nutmeg
- salted caramel sauce
- egg wash: 1 large egg beaten with 1 Tablespoon milk
- optional: 1/3 cup (40g) Diamond of California chopped walnuts

Instructions

1. Make the crust: Whisk the flour, sugar, and salt together in a medium bowl. Using a pastry cutter or a couple forks, cut in the butter until the mixture resembles coarse, pea-sized crumbs. Add the water and stir until the flour is moistened. Add 1 more Tablespoon of water if the dough seems dry. Gently knead the dough a few times on a lightly floured work surface until it all comes together. Shape the dough into a ball and flatten it into a thick disk. Wrap it in plastic wrap and refrigerate it for at least 1 hour and up to 3 days (or freeze up to 3 months).
2. As the dough chills, prepare the filling: Mix the apples, brown sugar, flour, lemon juice, cinnamon, and nutmeg together in a large bowl. Cover tightly and let sit until the dough is ready. I usually cover it and keep in the refrigerator during this time.
3. Preheat oven to 375°F (190°C). Line a large baking sheet with parchment paper or a silicone baking mat. Set aside.
4. On a lightly floured work surface, roll the dough into a 12-inch circle (or any shape, really!). Trim the rim of the circle to make a clean cut if desired. Transfer dough to the prepared baking sheet.
5. Arrange the apples (not the juices) into the center of the dough, leaving a 2-3 inch border all around. Gently fold the edges of the dough over the apples, overlapping the dough as necessary. Press gently to seal the edges. Drizzle 3 Tablespoons of salted caramel over the filling (not the crust). Brush the crust edges with egg wash and sprinkle the whole thing with walnuts, if using.
6. Bake until the filling is bubbly and the crust is golden brown, about 35-38 minutes. Allow to cool on the baking sheet for 10 minutes before slicing and serving.
7. Serve with extra salted caramel sauce drizzled on top.





SWEET TREATS

(CONT.)



Maple Vanilla Baked Pears

Ingredients

- 4 D'Anjou pears (aka Anjou pears)
- 1/2 cup (120ml) pure maple syrup
- 1/4 teaspoon ground cinnamon
- 1 teaspoon pure vanilla extract
- optional toppings: maple pecan granola, Greek yogurt

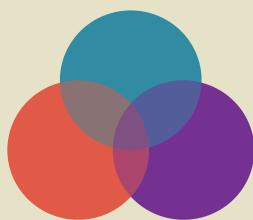


Instructions

1. Preheat oven to 375°F (190°C). I don't line my baking sheet when I make these, but you absolutely can with parchment or a silicone baking mat.
2. Cut pears in half, then cut a small sliver off the underside so the pears sit flat when placed upright on the baking sheet. See video above for visual. Using a large or medium cookie scoop or melon baller (or even a teaspoon), core out the seeds. Arrange pears, facing up, on the baking sheet. Sprinkle evenly with cinnamon—feel free to add more cinnamon if you'd like.
3. Whisk the maple syrup and vanilla extract together in a small bowl. Drizzle most of it all over the pears, reserving about 2 Tablespoons for after the pears are finished baking.
4. Bake pears for about 25 minutes until soft and lightly browned on the edges. Remove from the oven and immediately drizzle with remaining maple syrup mixture. Serve warm with granola and yogurt. Store leftovers in the refrigerator for up to 5 days.

INFORMAL GATHERINGS

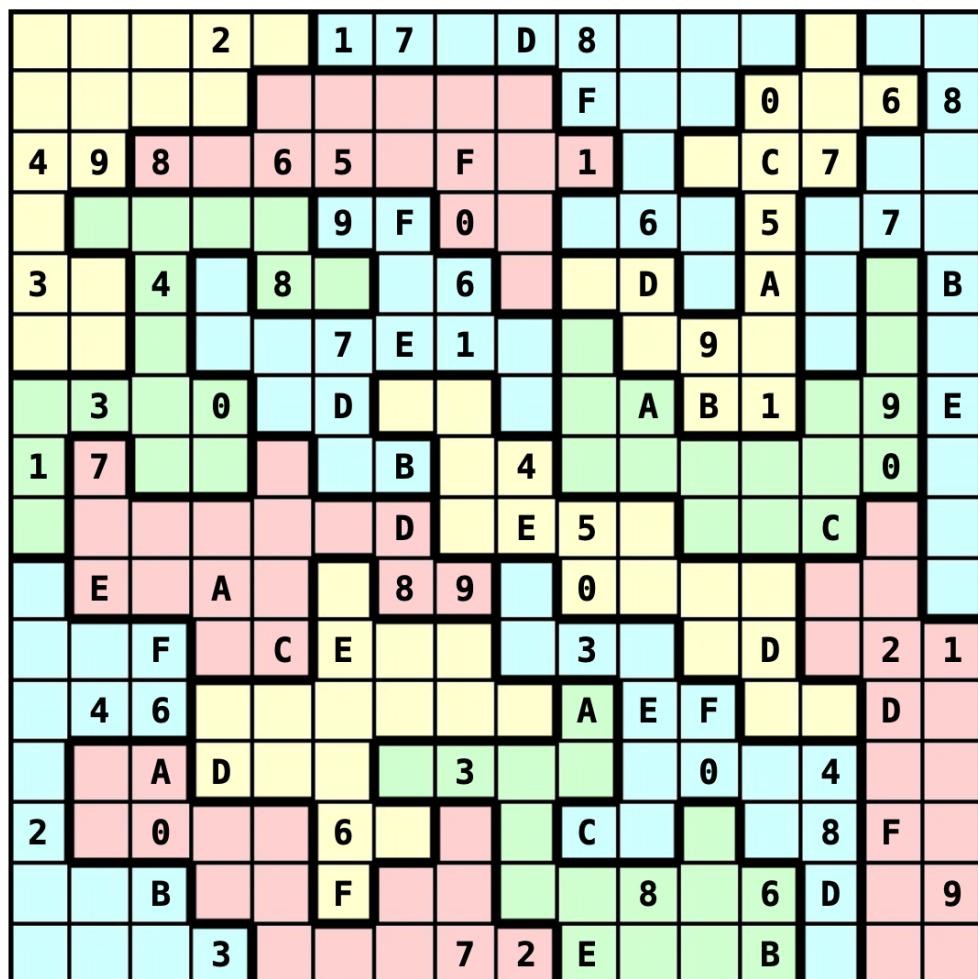




A LITTLE EXTRA FUN

This puzzle consists of 16 rows, 16 columns, and 16 regions. The sixteen regions are entangled in one another and separated by thicker lines. To solve the puzzle, you must fill the empty boxes, without repetition of the same value in the same column, the same line, or the same region. The values used are those of the hexadecimal numeral system.

sudoku-puzzles-online.com



Chaos hexadoku - 16x16 entangled sudoku - asymmetric, beginner, No. 840
Sunday, 19 September 2021 - 22:58:05