Keramos Annual Report University of Illinois at Urbana-Champaign Academic Year 2020-2021









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A Brief Forward from Illinois' Faculty Advisor

It has been a pleasure to serve as the faculty advisor for the University of Illinois' Chapter of Keramos for the year 2020-2021. In a season abounding in challenges, including remote learning and social distancing, the students of Illinois' Keramos chapter have demonstrated their resilience through creative adaptations of traditional activities and new formats of events that further the mission of the Chapter. These events have fostered community among engineers, served the broader Champaign-Urbana population, welcomed and mentored new students, provided professional development training and educational support, and continued the long tradition of developing excellent student leaders. Despite the change to a more online format this year, I can attest that this chapter remains consistently active, with a high degree of engagement from students of all classes, and especially from the executive board.

The events and updates from this academic year are detailed in the following report. I would like to highlight that the number of people initiated into Keramos membership within this Chapter has increased each year for the past three years. Forty-three new members joined in the academic year 2020-2021. Events this year have include a new St. Patrick's Day ceramic mugbased fundraiser; educational "gripe sessions" to provide curriculum feedback to the department; professional development activities including student panels on career opportunities, mentoring for new students, resume reviews, and company information sessions; service events including blood drives, environmental clean-up, and mentoring to younger students outside the department; educational events including a MATLAB tutorial; and social events (with safety precautions) including a trip to a local orchard. Due to the implementation of social distancing requirements specific to shared lab spaces, the popular "play with clay" events have not been able to take place this year; we look forward to their return when wider access to the Kiln room and associated labs is possible again. We are thankful that our campus early on implemented biweekly, free covid testing for everyone, which has enabled continuation of building access when needed.

The Chapter has successfully carried out remote elections for next year's executive board. I look forward to working with Noah Hanselman (incoming President), Jessica Lawson (incoming Vice President), Kayla Huang (incoming Treasurer), Kira Martin (incoming Professional Chair), Meghan Oh (Herald/Secretary), and James Heaton (Herald/Webmaster). In summary, the Illinois Chapter of Keramos remains strongly committed to student professional development, education, and service, as evidenced by the wide variety of successful events held this past year and upward trajectory in membership.

Sincerely,

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Nicola H. Perry

Assistant Professor, Materials Science & Engineering, University of Illinois, Urbana-Champaign



Annual Plan for the Coming Year

Dear Keramos National Board,

I am honored to serve as the president of the University of Illinois Urbana-Champaign Keramos Alpha Chapter for the 2021-2022 academic year. In the previous two years, I have held the role of Herald, giving me experience with the hands-on, clay working portion of the organization as well as exposing me to how the Keramos executive board conducts its business. As such, I have a great deal of experience in what the core values are in our Keramos Chapter. Some of these values being professional development, community, faculty-student cooperation. In the coming year, I hope to reinstate and reinforce these values for new and current members alike.

The past year has brought with it trying and demanding times for all of us. In an organization which thrives on tradition and community such as Keramos, it has been difficult to maintain this experience and offer sufficient support and professional events for its members. This coming year will be one of rebuilding Keramos back to its former status so it is again able to offer regular events to better its members' professional skills and connect them with companies, peers, and faculty. Some professional opportunities include those such as etiquette dinners and tech talks with potential employers. Etiquette dinners teach members how to conduct themselves should they have any sort of business-related dinner event, and tech talks feature companies to talk about their products and potential offered roles. Another important part of our Keramos chapter is our routine Play with Clay events where members help make their own ceramic product from scratch. Keramos has not been able to host these events since quarantine started in March 2020, but I am looking forward to reinstating this event as one of the core community-building events of the organization.

Going forward, keeping membership and initiation numbers up is an important priority. In the past year, it has been more difficult to get the word out about our organization and what we have to offer. It is important to make sure our numbers do not decrease as a result of this decreased publicity in the past year. In order to do this, I am looking to organize events such as a meetup with the incoming Materials Science and Engineering freshman in their introduction class. This should make sure all incoming members into the major know about our group and the opportunities we have to offer. In the coming Fall, the college plans to have its traditional E-night. At this event, Keramos will have an opportunity to set up a booth explaining what the organization is and how interested members can join. This will allow us to connect with individuals in the major who might have not heard about Keramos in the past year during online school. This coming year will bring forth as many unique challenges as the last year did during a pandemic. Recovery after such a difficult year will not be easy, but I have faith the organization will continue to thrive in the coming school year.

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University of Illinois Keramos Chapter President 2021-2022

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Noah Hanselman



List of Officers



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Active Members List

Fall 2017 Initiates

Hannah Harris

Spring 2018 Initiates

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Jay Baek	Timmy Dong	Justin Gruber	Alberto
5			Martin an Causia
			Martinez-Garcia
Amy Merkelz	Colleen Moauro	Vineet Tagare	
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Fall 2018 Initiates

Elena Di Mare	Sankhya Hirani	Jin Woo Kim	Kevin Lee
Amay Nirula	Alison Nunes	Wonjoon Suk	Matthew Wu

Spring 2019 Initiates

	1 U		
Alymuhammad Gilani	Elizabeth Atkinson	Alekh Beri	Joe Boyce
Lucas Carillo	Samuel Feathers	Ian Flueck	Alex Futterer
Haibo Gao	Patrick Gardocki	Trisha Gupta Sharma	Noah Hanselman
Meera Jagannathan	Cole Klobuchar	Matthew Larson	Donghyun Lee
Grace Levita	Jordan Meyer	Gillian Niezyniecki	Adamaris Nuñez
Bonian Pan	Jon Ripper	Varun Sharma	Alexander Swett
HuiZhi Tao	Tommy Yang	Dana Yun	Adam Zatar

Fall 2019 Initiates

Paloma Alcala	Vansh Gupta	Kevin Lee	Avery Maloto
Nihar Mara	Brisa McGrath	Patrick McNutt	Amanda Mittanck
Yassin Mohammad	Meghan Oh	Kacper Rebeszko	Corynne Roberts
Joshua Simpson	Talha Tariq		

Spring 2020 Initiates

	1 0		
Mostafa Abdalla	Katelyn Bagwell	Valeria Cruz	Xiangrui Deng
Maryanne Derkaloustian	Julia Dreher- Thelkeld	Simon Grimm	Ryan Halton

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James Heaton	Charlotte Holas	Nithiyassri Vivagandran	Jan Lakomy
Jessica Lawson	Nathan Levandovsky	Eden Li	Maria Castellanos
Jenna Ornias	Catherine Ott	Julia Prendergast	Micah Rubel
Malik Siddique	Stephen Skala	Bailey Woolridge	Christina Yu
Lucas Zaczek			



New Initiates This Academic Year

Fall	2020	Initiates
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Adrian Aguero	Doha Amer	Janak Bachkaniwala	Cole Benvau
John Chen	Gavin Depew	Erin Falsey	David Hodges
Henry Hwang	Alexander Kosyakov	Eric Li	Kira Martin
Maritza Murillo- Hernandez	Kelly Perozek	Sara Pfeil	Jessica Rangel- Galera
Katie Roche	Sofia Vargas	Peter Walker	Hanlin Wang

Spring 2021 Initiates

	1 0		
Katrina Arsky	Nicole Bremner	Daniel Cudzich	Thomas Gomez
Michael Han	Kayla Huang	Nathanial Inumerable	Saagar Kolachina
Alexander Lussier	Akhita Mattapalli	Robert Nollett	Sathvik Pai
Harrison Patel	Evan Saebeler	Ella Schwartz	Sanjay Sibi
Montserrat Solis	Suhaas Sura	Lydia Taylor	Shivam Taylor
Jake Tokarewich	Aleah Treiterer	Nadya Widjaja	



Graduating Members This Academic Year

Paloma Alcala	Clarissa Domanus
Justin Gruber	Amy Merkelz
Colleen Moauro	Amay Nirula
Talen Sehgal	Vineet Tagare
Elena Di Mare	Timmy Dong
Ryan Halton	Hannah Harris
Sankhya Hirani	Kevin Lee
Adamaris Nuñez	Catherine Ott
Wonjoon Suk	Peter Walker
Matthew Wu	Tommy Yang



Honorary Keramos Member Nomination

Prof. Bryan Dunne, Ph.D.

The University of Illinois at Urbana-Champaign Keramos Chapter would like to nominate Professor Bryan Dunner to be an honorary member of Keramos for the 2020-2021 academic year. Professor Dunne received a B.A. in physics and applied mathematics from Rice University in 1996 before working at Los Alamos National Lab on the ALEXIS satellite project. He joined the University of Illinois's Department of Astronomy in 1997 as a graduate student. He received his Ph.D. from the University in 2007 and stayed on as Assistant Chair of Astronomy, leading the department business office and teaching astronomy courses. In 2018, he was named a Chancellor's Academic Professional Excellence Award winner for his service to the



University. In 2019, he transitioned to Teaching Assistant Professor and Director of the Campus Observatory, taking a more teaching and advising role in the department. His primary research is focused on observation of the night sky, a critical role in astronomy. Specifics include observational cosmology and the Sloan Digital Sky Survey, a dedicated imaging and multi-object spectroscopic survey in the optical and near-IR.

As a professor, he has taught numerous courses in the Astronomy curriculum such as Introduction to Astronomy, The Solar System, Introduction to Astrophysics, and Extraterrestrial life. His courses offer a new, but relatable route for materials scientists. With discussions of topics such as blackbody radiation and electromagnetic radiation, materials scientists are able to grow their scientific knowledge and expand on the possible applications of what they have learned in their strictly materials science courses. Potentially giving opportunities in industry that they never would have learned about not given the opportunities in astronomy. His enthusiasm for teaching and strong contributions to not only the astronomy department, but to the university as a while, make Professor Dunne a perfect candidate for an honorary membership in Keramos.



Treasurer's Report

The University of Illinois at Urbana-Champaign Chapter of Keramos obtained a total of \$2,415.00 and spent a total of \$9.36 over the course of the 2020-2021 school year. The amount gained was obtained through a combination of fundraising, MS&T prize money, and membership initiation fees. The amount spent was used on using a 3D printer on-campus for the MS&T Mug Drop competition. The final balance is \$2,405.64 greater than the initial balance for the academic year. Due to the COVID-19 pandemic, there were no in-person events, which helped the Keramos Chapter at UIUC reduce expenses throughout the year. The following table contains the annual expenditure report for the UIUC Chapter.

	Bank Account				
Date	Transaction Amount	Balance	Description		
6/30/2020		\$3,236.23	Beginning Balance		
11/7/2020	\$1,000.00	\$4,236.23	Fall 2020 Initiation Fees		
12/17/2020	-\$9.36	\$4,226.87	MS&T Mug Drop 3D Printer Use		
1/20/2021	\$300.00	\$4,526.87	MS&T Competition Prize Money		
3/25/2021	\$15.00	\$4,541.87	St. Patrick's Day Fundraiser		
4/17/2021	\$1,100.00	\$5,641.87	Spring 2021 Initiation Fees		



Chapter Activities

✤ Note on Keramos/MA at Illinois Partnership

- Material Advantage (MA) is another materials science student organization on campus at the University of Illinois. Keramos at Illinois is blessed to have an extremely tight-knit partnership with our local chapter of MA. Many of our events are co-sponsored in an effort to increase turnout and provide the best possible service to our materials science and engineering (MatSE) community here at the University of Illinois. Many Keramos members are also MA members. Keramos at Illinois, however, keeps many separate components including our bank accounts, fundraising efforts, and several Keramos-only events. These events include the Keramos Initiation, Play with Clay and many professional events. We at Keramos at Illinois keep our proud and unique Keramos traditions, even as we collaborate with MA to better serve the MatSE at Illinois community.
 - All events are hosted via zoom.

* Fundraising Efforts

- St. Patrick's Day Fundraiser
 - This year, Keramos held a fundraiser in observance of St. Patrick's Day. This fundraiser was prepared by the Treasurer and the Heralds, where the Heralds created and decorated ceramic containers that MatSE students could purchase. This event helped increase our funds and gave students a chance to get in the spirit for the holiday. Below are some of the containers that were available for purchase.









Educational Outreach

Gripe Sessions

- These events occur at the end of every semester and revolve around student feedback to the department. Keramos at Illinois is lucky enough to have fantastic relationships with our previously mentioned partner organization Materials Advantage (MA) as well as with the MatSE department faculty. This event was made in coordination by all three organizations. Keramos and MA invite the MatSE general student body to attend a meeting and go through all the MatSE courses that had been offered during the semester. Students who were registered in each class give positive and negative feedback to us about that class during this time. Students also provide feedback about the MatSE curriculum in general and some of the practices used by the department. Keramos and MA condense and refine that feedback and two representatives of the student organizations meet with several representatives of the MatSE faculty. These usually include the MatSE department head, the department associate head and the department head advisor. The representatives of the MatSE department then give feedback to each of the faculty about their courses.
- Student Panels
 - Keramos holds student panels once a semester that typically revolve around upperclassmen's personal experiences getting internships, conducting research and applying to graduate school. In the fall, Keramos held an internship student panel in the days leading up to the fall career fair. The purpose of this was for underclassmen to learn and ask questions of their peers. The panel consists of Keramos members who are approachable and have diverse academic backgrounds and experiences so that underclassmen can learn about the variety of paths there are to follow.

MATLAB Tutorial

Our MATLAB Tutorial has become an annual event following our January general body meeting. MATLAB is an important software in the MatSE curriculum and as underclassmen begin taking MATLAB intensive courses in their second semester, we are able to provide them with some basic techniques they will use throughout their undergraduate career as a MatSE student. MATLAB content covered included remote access, basic syntax, vector math, graphing data and several data manipulation methods. This event was organized by one of Keramos's Heralds, Talen Sehgal, and incoming Keramos President, Justin Gruber.



Professional Development

- Resume Reviews
 - As part of Keramos' services to our MatSE community and members, we provided experienced upperclassmen to look over resumes of underclassmen in the days leading up to each career fair. For younger students, getting help from their peers is often less intimidating than getting help from professionals and can even be more instructive, as they can hear advice from people who were in their place only a couple years ago.

Company Info Sessions

Our professional chair is responsible for keeping contact with and finding new company contacts. These contacts often visit once a year to talk to Keramos about their company, what they are looking for in applicants, and how to apply to materials science positions. These info sessions are fantastic networking opportunities for Keramos members, and these are some of our most popular and talked about events. Companies that talked to Keramos this year included the Chevron Corporation, Clorox, HexNest and Exxon Mobil among others.

Service Events and Outreach

- Blood Drive
 - Keramos and MA hosted two blood drives on campus in October 2020 and February 2021 through the American Red Cross. The events had upwards of 40 willing participants to donate with 10 Keramos members checking in the participants and taking their temperatures. These events were held in the Illini Union, with both members of the community and members of Keramos donating blood as well as getting tested for COVID-19 antibodies.
- Illini Mentor Program
 - Keramos participated in the Illini Mentor Program hosted by the University of Illinois. This program is an opportunity to educate elementary and middle school students about the world of STEM and inspire them to embrace science and pursue engineering as their passion. Keramos members recorded a materials science-based demonstration, consisting of a short presentation about different types of materials. These demonstrations were made available online, and shared with the Illini Mentor Program to be used during their virtual mentoring hours.



Clean Up Champaign Day

 Keramos members participated in an event to clean up Bardeen Engineering Quad and Boneyard Creek/Greenway on their last wellness day of the year. This event lasted two hours and resulted in a cleaner environment for the wildlife living in Boneyard creek and a cleaner walk through Boneyard Greenway in Campustown. About ten members were able to cover over 1.25 miles of trash along Boneyard Creek, filling three 55 gallon trash bags.









* Social Events

- Curtis Apple Orchard
 - A much anticipated annual event that is held in the fall is the trip to our local apple orchard. Again, co-hosted between Keramos and MA, over 15 people attended. Attendees picked apples, went to the gift shop for donuts and cider and many pictures were taken.







- Mentorship Program
 - Annually in the fall we start our freshman mentorship program. This program is cohosted with MA and pairs up incoming freshman with upperclassmen mentors. Mentors give their freshman and transfer student mentees a new connection in MatSE as well as insight into what it is like to go to school at Illinois. Mentors provide career, academic and social advice to their mentees. This year there were 36 mentors and 47 mentees who signed up with 43 mentees showing up to the mentorship program kick-off event. Groups were created instead of the traditional one mentorone mentee system in order for mentees to bond with fellow freshman in their group as well. Each group had 3 to 5 mentees and 2 mentors. Throughout the fall semester mentorship events are being set-up. Most of these events are social in nature and we encourage the freshman to turn up to some of Keramos' other professional and service events that occur outside the mentorship program. The most popular of these social mentorship events were the MatSE Olympics which took place on the University of Illinois' main quad. Qualitatively, there were noticeably higher level of freshman involvement during the fall Keramos events than in previous years leading us to deem this year's mentorship program a success.

Play with Clay

Keramos at Illinois' crowning jewel in many of our executive board's minds is the weekly Play with Clay events hosted by our Heralds. No other event so perfectly espouses the values of Keramos as Play with Clay. The Heralds make clay slip from scratch in the days leading up to Play with Clay. Keramos members can then slip cast or use throwing clay to create whatever they want from the ever-expanding library of molds Keramos has in our ceramics lab. Keramos members glaze their creations and between Play with Clay sessions the Heralds use our brand-new Kiln to fire the pieces. Play with Clay is a time for Keramos members to socialize, bond together, learn about ceramics processing, unwind, and to live a part of Keramos tradition that has been going on about as long as the Illinois Chapter of Keramos has existed. Our Heralds are always working on new molds, for example a coffee mug mold. They are always perfecting their craft as well, and with our new kiln much more is possible. Our Heralds are starting on new methods for the mug drop competition and disk throwing competition. Finally, the last important role of the Heralds is to make ceramic 'professor pigs' to give to two MatSE professors who have exhibited excellence in their teaching and particular care with their students. The Professor Pig is certainly a talked about award among the MatSE faculty but this year, once again COVID-19 has cancelled the ceremony which normally takes place between Mid-April and March.









* Keramos Graduation Cords

In continuation of last year's tradition, we are honoring our graduating Keramos members with a graduation cord. Last year Keramos purchased 200 custom graduation cords for our Keramos members graduating last year who complete their required hours and for Keramos members graduating in the future. The cords are the official Keramos colors of cobalt and gold and each cord has a charm attached in the shape of the Keramos crest. We are very excited to see graduation pictures with Keramos members showing off their cords.





Keramos Initiations

The Keramos Initiations at Illinois is a highly anticipated event as it is a time to expand our Keramos at Illinois family. This year the two initiations that were hosted were done via zoom. The events of initiation start with the candidates being placed into a zoom waiting room to pay membership dues, followed by the ceremony itself. After dues have been properly paid to the Keramos treasurer the initiation ceremony occurs, strictly following the official Keramos ceremony requirements. After this, the candidates are given a tour of our ceramics lab by our Heralds and finally we eat a catered meal together. Keramos initiation, and therefore membership, has been growing every year for as long as our records go back! The school year of 2017-2018 saw 22 new initiates, the next year (2018-2019) saw 37 initiates. In the 2019-2020 school year Keramos initiation had 39 new initiates. This year we have improved even on last year's incredibly high numbers. The 2020-2021 school year Keramos initiation had 44 new initiates which is a 12.8% increase from the previous year. It's a great time to be Keramos at Illinois!



