#### AIChE Chicago Section

# November Newsletter

**Chicago Section** 

www.aiche.org/Chicago

November 2017



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## **AIChE Chicago**

## FERMI Lab Tour & November Meeting

## My 1000 Year Dreams with Particle Physics

## Dr. Jaehoon Yu

Professor of Physics, University of Texas @ Arlington

Date: Thursday, November 9, 2017

	Fermilab Kirk and Pine Street Batavia, IL
Program Location:	Country House Restaurant 2095 S Kirk Rd Geneva, IL 60134
Tour Cost: \$5	

**Dinner Costs:** AIChE Global and Local Section Member: \$40 AIChE Global Member: \$45 Non-Member: \$50 Students: \$10 Unemployed/Retired: \$15

### Register Here:

http://www.cvent.com/d/3tg145/

#### Agenda

12	4:45-5:00: Meet at Wilson Hall, Fermilab
	5:00-6:30: Tour at Fermilab
13	(allow 15 min for driving between Fermilab and restaurant)
	5:45-6:45: Meeting registration at restaurant
14	6:45-7:45: Dinner
14	7:45-8:00: Section Announcements
	8:00-9:00: Technical presentation

## **Chair's Corner**

It is still relatively early in our programming season, and it is not too late to volunteer and get more involved! All of the programming for the AIChE Chicago Section is organized and made possible by volunteers! If you like the programming, please consider volunteering!

As well as helping us provide programming that you enjoy, there are also benefits to volunteering. Volunteer experiences helps build professional development skills such as leadership, communication, budgeting, or public speaking.

Becoming involved in AIChE is also a good way to meet to new people and grow your professional network. Dennis O'Brien, Director-at-Large for the Chicago Section, said that his involvement helped him make "expert contacts that have proven to be useful in my career as a consultant."

Others enjoy the ability to contribute to the engineering community, either through K-12 outreach or through sharing and discussion of technical developments in the industry. Ellen Kloppenborg, Director-at-Large for the Chicago Section said, "It's been great to be able to expose so many students around the Chicago area to chemical engineering and how it affects their daily lives. From demonstrations on polymers and fluid flow to organizing interesting speakers, I've enjoyed the chances to educate our future."

Even if you are not interested in a large time commitment, there are still opportunities to get involved. The easiest and least time consuming way to help out the local section is sharing our events with your friends and co-workers by liking or sharing our posts on <u>Facebook</u> or <u>LinkedIn</u>! You could even share our events the old-school way – print out the first page of the newsletter and post it in the bulletin board of your cafeteria!

If you have slightly more time commitment, you can volunteer for a single event such as a K-12 outreach event or help at the registration desk for one morning at the Midwest Regional Conference. On a national/global level, <u>AIChE's Volunteer Central</u> is a great way to look for ways to contribute. AIChE posts volunteer opportunities that range in a 1-4 hour time commitment (even though some take even less than 1 hour!), up to 30+ hours.

And you never know – after volunteering once, you might just want to come back and volunteer more. Mr. O'Brien, an AIChE volunteer both Chicago and nationally for more than 20 years stated his AIChE volunteer journey by "doing resume reviews at a National meeting here in Chicago."

If you are interested in volunteering for the local section, see page 13 of the newsletter for opportunities or please contact us at <u>aichechicago@gmail.com</u>, and maybe we will be reading your quote in the Chair's Corner in twenty years!

Janet Werner

Chair, 2017-2018



CHICAGO SECTION

#### November Meeting

#### My 1000 Year Dreams with Particle Physics

#### **BIOGRAPHY**

Jaehoon (Jae) Yu is a physics professor at the University of Texas at Arlington (UTA) for 16 years. He received his Ph.D. from the State University of New York, Stony Brook in 1993 on the D0 experiment at Fermilab on a precision measurement of the strong coupling constant using W+Jets final states. As one of the early graduate students on D0, he participated in construction of the detector, specifically the Uranium-Liquid Argon central calorimeter, and the initial commissioning of the experiment. As a postdoctoral fellow at the University of Rochester, he created the QCD studies group using W/Z+jets events on D0, for the first time in history.

He then moved to Fermilab to work on the NuTeV experiment, a neutrino deep inelastic scattering experiment. For this experiment, he led the construction of the in-situ calibration beam line, the operation of the entire calibration program and the publication of the experiment's calibration paper. Upon returning to D0 as a Fermilab staff scientist, he became the first commissioning coordinator of the upgraded D0 experiment, leading 600 physicists from all over the world.

Starting his job at UTA in 2001, he led the first implementation of the computing grid technology into D0 and used it for the search for Higgs particle in associated production with a W particle, leveraging his thesis analysis expertise. Keeping his expertise on Higgs searches at D0, he moved to ATLAS experiment at CERN in 2005 and contributed to the discovery of Higgs particle announced in 2012 while playing various leadership roles. He has returned to Fermilab neutrino experiments in 2013, and led the LBNE detector R&D efforts until it is superseded by DUNE in 2015. At present, he is on three LAr TPC neutrino experiments at Fermilab and is lead-



ing the Beyond the Standard Model physics group on DUNE, which aligns with his interest of discovering the dark matter. He is building the field cage for the Dual Phase ProtoDUNE detector to be operating at CERN in 2018.

In addition to the active professional research work above, as a Korean-American physicist, Jae served in the Korean-American community many capacities, including as the elected president of the Association of Korean Physicists in America (AKPA.org) in 2013 – 2015 term and as the president of the Korean-American Scientists and Engineers Association (KSEA.org) in 2016 – 2017 term.

#### ABSTRACT

High energy particle physics seeks to find the fundamental constituents of matter and understand the forces between them. To accomplish this, powerful high energy accelerators are used to probe smallest possible scale along with complex, large scale detectors. After the 2012 discovery of the Higgs particle believed to be the manifestation of the mechanism that gives mass to all fundamental particles, the attention in the particle physics has been on discovering the paradigm changing phenomena - new particles at the Large Hadron Collider (LHC) in Europe and the precise understanding of the neutrinos which make up a quarter of the fundamental particles. The Deep Underground Neutrino Experiment (DUNE) is the US flagship experiment at Fermi National Accelerator Laboratory near Chicago. It will shoot unprecedented intensity of beams of neutrinos, fundamental particles of matter to large (75kt total mass) liquid Argon detector about a mile underground 800miles away in South Dakota. The high intensity neutrino beams will enable physicists to measure the properties of neutrinos and potentially discover dark matter which makes up 25% of the university. DUNE is building two large scale prototype detectors called protoDUNE for data taking in 2018 at CERN, Geneva Switzerland. In this talk, I will discuss the fundamentals of particle physics and DUNE experiment along with its potential role in search of dark matter.

To Register :

http://www.cvent.com/d/3tq145/

#### Directions to Wilson Hall, Fermilab:

Fermilab's main entrance is located at the intersection of Kirk Road and Pine Street in Batavia, Illinois, about 45 miles west of Chicago. The intersection of Kirk Road and Pine Street can be used as a GPS address. For directions from the Main Entrance to Wilson Hall, use this map <u>http://news.fnal.gov/wp-content/uploads/site-</u> <u>map.pdf</u> or you can ask for directions at the gate house.

#### ERNEST W. THIELE AWARD

The Ernest W. Thiele award is sponsored by BP and recognizes the outstanding contributions to our profession by a Midwest region chemical engineer. This award was established by the AIChE Chicago Section and is presented annually to a Midwest region AIChE member. This internationally recognized award consists of an engraved plaque and \$1000 honorarium presented at our sectional meeting.

Nomination forms and additional information can be obtained from the Thiele Committee Chair. Completed nominations are due to the committee chair no later than <u>April 1, 2018</u>

One of the highest honors a distinguished chemical engineer can receive is our Chicago Section Thiele award. Please consider nominating a deserving engineer for this prestigious award.

#### Jim Simnick

BP Amoco Complex, J-8 150 W. Warrenville Road, Naperville, IL 60566 Ph 630-420-5936, fax 630-420-4832

email: james.simnick@bp.com

## Connect with members & participate in discussions on Engage!

Check out AIChE's member benefit, AIChE Engage. Use the robust directory search to find and connect with members. Participate in technical, career, and academic discussions about chemical engineering.

#### **October Meeting Summary**

About 50 members attended the October 2017 monthly meeting at Greek Islands in Lombard, IL. The meeting began with a social hour for members to network, followed by a multi-course authentic Greek meal. This month's speaker was Dr. Robert F. Reardon from Texas State University and Primatech, who presented on "Operator Training: Theory and Best Practices". Attendees intently listened to Dr. Reardon as he spoke of proper methods of training and evaluating plant operators, while citing cases in which plant managers failed to effectively educate employees. The meeting ended with an opportunity for attendees to ask Dr. Reardon some questions and a final chance to network.

#### By: Connor Wegner





#### Young Professionals NEWS

The AIChE-Chicago young professionals held two events in October. First we had an Oktoberfest social at the Bavarian Lodge in Lisle on October 19th. There was a first-time attendee, whose mind we picked for future event opportunities. A theme that emerged was to consider future events where we discuss some of the soft skills involved, especially when working in teams or with other disciplines. The highlights were excellent craft beer and hearty portions of schnitzels. I believe everyone would recommend the place but note they are open only on Thursday through Sunday.

Then on Saturday, October 21st, the YPs participated in ACS's Chemistry Day at Malcom X College. Thanks to the help of volunteers from IIT, we had well attended morning and afternoon shifts . We were given two tables and we used all of the available real estate to draw in curios bystanders. We had a massive poster, candy, and PPE such as

hard hats, safety-toe boots, lab coats, and safety goggles. Most of the kids that came through were high school freshmen unaware of all the benefits a degree in chemical engineering offers. The parents were appreciative and attentive usually asking the more interesting





questions. I'd like to thank the YPs that joined us for Chemistry Day and hope we continue to promote chemical engineering at future Chemistry Days. A special thanks to Kimberly Douglas who coordinated with ACS and Malcolm X College thereby ensuring a successful event.

Our next event is tentatively scheduled for *Friday, November 17th at Lagunitas Brewing* Company Chicago. We plan on including a brewery tour. Look out for the official YP notification hitting your mailbox soon!

Best regards,

Eleftherios (Larry) AIChE-Chicago YP Chair

## "CALL FOR CONTRIBUTIONS"



2018 AIChE Midwest Regional Conference Chicago, IL –*March 13-14, 2018* Hosted by Illinois Institute of Technology Organized by Chicago Local Section of AIChE

## Note: The submission deadline is December 1, 2017 https://tinyurl.com/Submit2MRC2018

The planning committee for the 2018 AIChE Midwest Regional Conference is proud to announce the following slate of invited speakers:

Keynote Speakers:

Jim Rekoske, Chief Technology Officer, UOP/Honeywell

John A. Rodgers, Professor, Northwestern University

Doraiswami Ramkrishna, Distinguished Professor, Purdue University

Plenary Speakers:

Russell A. Ogle, Principal Engineer, Exponent

**Christopher W. Jones**, *Professor and Associate Vice President for Research, Georgia Tech* 

Thomas Foust, Director, National Bioenergy Center, NREL

**Kimberly Grey**, *Professor and Chair, Civil and Environmental Engineering, Northwestern University* 

For submission questions Contact the Programming Chair at <a href="mailto:chief">chief</a> <a href="mailto:chief"</a> <a href="mailto:chief"</a> <a href="mailto:chie

CHICAGO SECTION

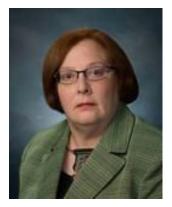


AMERICAN CHEMICAL SOCIETY — CHICAGO SECTION CAREER WORK-SHOP

### **TUESDAY, NOVEMBER 7, 2017**

### Writing an Effective Resume

## Fran Kravitz, Chair, ACS Chicago Section Board of Directors



PROGRAM

7:00 – 8:00 PM UIC Lecture Room 138SES

845 West TaylorStreet

## UNIVERSITY OF ILLINOIS AT CHICAGO

Learn to write an effective resume that will grant you an interview with a potential employer.

The Employment Committee in collaboration with the Younger Chemist Committee is host to a series of workshop presentations related to career options and planning. Each program will be about 45 minutes, followed by questions.

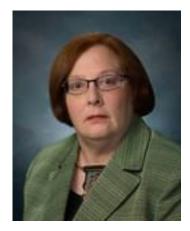
See website at *www.chicagoacs.org\_*for full details, directions, and maps. Parking available at UIC LOT 5 on Morgan St. north of Roosevelt Rd., or Halsted Parking Lot.



AMERICAN CHEMICAL SOCIETY — CHICAGO SECTION CAREER WORKSHOP THURSDAY, NOVEMBER 30, 2017

### **Effective Interviewing Skills**

## Fran Kravitz, Chair, ACS Chicago Section Board of Directors



#### PROGRAM

7:00 – 8:00 PM UIC Lecture Room 138-SES 845 West Taylor Street

## **UNIVERSITY OF ILLINOIS AT CHICAGO**

Learn how to prepare for an interview with confidence. Discussion will include how to handle difficult questions using the CAR (Context-Action-Result) method.

The Employment Committee in collaboration with the Younger Chemist Committee will be hosting a series of workshop presentations related to career options and planning. Each program will be about 45 minutes, followed by questions.

See website at *www.chicagoacs.org* for full details, directions, and maps. Parking available at UIC LOT 5 on Morgan St. north of Roosevelt Rd., or Halsted Parking Lot.



#### AMERICAN CHEMICAL SOCIETY — CHICAGO SECTION CAREER WORK-SHOP THURSDAY, DECEMBER 7, 2017



### New Technologies to Manage Your Career

## Lisa Balbes, Balbes Consultants

#### PROGRAM

7:00 – 8:00 PM UIC Lecture Room 138-SES 845 West Taylor Street

#### UNIVERSITY OF ILLINOIS AT CHICAGO

We all know that the Internet and Information Technology have changed the way we do business. But how have they changed the way we find business, or even find new careers? New

technological tools, such as LinkedIn, IDPs, NAICS codes, Twitter, and more, provide a wealth of information and open all sorts of avenues for career options. This presentation will focus on tools and techniques of particular use to chemical professionals, including navigating the online job search and application process, evaluating and improving your own personal brand, and more. The absolutely most current information will be provided, as well as ways to monitor trends in these new techniques. Dr. Lisa Balbes has been a technical writer and editor for over 25 years, a National ACS Workshop developer and presenter, and author of "Non- traditional Careers for Chemists: New Formulas in Chemistry." She is a graduate of Washington University in St. Louis, and University of North Carolina at Chapel Hill.

The Employment Committee in collaboration with the Younger Chemist Committee is host to a series of workshop presentations related to career options and planning. The program will broadcast from a remote site through a live stream. Each program will be about 45 minutes, followed by questions.

See website at **www.chicagoacs.org** for full details, directions, and maps. Parking available at UIC LOT 5 on Morgan St. north of Roosevelt Rd., or Halsted Parking Lot.

NG TO SOMET

## Building a Global Community of ChEnections through AIChE®

## Have you always thought about joining AIChE\* but never got around to it?

#### Belonging to AIChE never looked better.

Accept my invitation to join AIChE and you'll be automatically entered to win up to \$350 in prizes throughout the year. To be eligible for the drawings, just enter the following on your application:

- The code: COMMUNITY
- Our ENTITY name along with first and last name in the field of "Who referred you to join?"

Chicago Section

Visit www.aiche.org/community/membership today and start building your Global Community of ChEnections.

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Here's a sampling of the top benefits more than 53,000 AIChE members in 110 countries have taken advantage of:

- One-year subscription to CEP Chemical Engineering Progress<sup>®</sup> (in print and online). AIChE's flagship publication is included in your dues.
- Preferred rates on AIChE conferences attend just one conference a year and your AIChE membership pays for itself
- Free, unlimited access to the AIChE eLibrary, featuring the Knovel® Life Sciences collection
- Six free annual credits to use on AIChE webinars and conference presentations from AIChE Academy
- Free career resources and services
- And much more

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#### Why Renew Your AIChE Membership?

Renew your membership now to keep learning and growing. Renew Membership Stay Connected to 40,000+ international members who take advantage of:

Subscription to AIChE's flagship publication: CEP\* •

HOLARSH

- Education—Access to e-learning courses and instructor-led training, offering Continuing Educations • Units and PDHs
- Access to CareerEngineer—a comprehensive job site tailored to chemical engineers •
- Access to the AIChE eLibrary-a wealth of information from Knovel Life Sciences and the McGraw-Hill • AccessEngineering Library collections

#### **View COMPLETE benefits**

## Attention Students and Parents!

If you are an undergraduate chemical engineering student or have a son or daughter that plans to study chemical engineering you may be interested in the Chicago Section's scholarship program. Applications are due March 1st.

Please <u>click here</u> to read rules and eligibility.

For a Link to the Electronic Version of the AIChE Chicago Scholarship Application Form, Click on the Link Below:

http://form.jotform.us/form/42814483647159

### AIChE Chicago is now on Facebook and LinkedIn!



Like us on Facebook www.facebook.com/AIChEChicagoSection

Join our group on LinkedIn!

#### Volunteers Needed for MRC 2018

The AIChE Midwest Regional Conference 2018 organization is well underway. We are still trying to fill a couple of Committee Chairs:

- **Registration Committee Chair -** registration Committee (ARC) is responsible for the registration.
- **Onsite Registration** responsible for the printing of name badges for all preregistered attendees and distribution of program books. Also, issue PDH (continuing education) certificates as well as manage associated sign-in/out sheets.
- **Lodging and travel** Provide support for making arrangements and/or coordinating travel arrangements for out of state guest, participants and visitors.
- **Signage** responsible for creating, printing and displaying any signage required for the conference.

If you have an interest in any of these positions or if you want to volunteer for any other MRC committee, please contact Reza Mostofi at<u>mostmoh@gmail.com</u>. The MRC 2018 will be held March 13-14th, 2018 at IIT. More information is available at the conference website,<u>www.aiche.org/chicago-midwest-regional-conference</u>.

### Volunteers Needed for Chicago Local Section

The AIChE Chicago Section needs volunteers to help with:

- Newsletter Editing format, edit, and draft newsletters
- **Newsletter Contributions -** write meeting summaries, contribute photos, interview members, or write newsletter pieces
- **Welcoming and Registration** help at registration desk for monthly meetings, develop membership initiatives
- **Professional Development and Sponsorship** find and arrange company sponsors and provide professional development for monthly meetings
- Awards coordinate nominations for AIChE awards

If you have an interest in either of these positions or if you want to volunteer for any other MRC committee, please contact email <u>aichechicago@gmail.com</u>.

Upcoming	AIChE Conferences, Meetings and Webinars				
	Chicago Local Meetings				
November 9, 2017	Jaehoon You—University of Texas, Arlington, Fermilab IL				
March 13-14, 2018	Midwest Regional Conference, IIT, Chicago				
AIChE Conferences					
Nov 14–15, 2017	2017 European Conference on Process Safety and Big Data (Co-sponsors: CCPS and EPSC), Frankfurt am Main, Germa- ny				
Dec 2–3, 2017	2017 Rock Stars of Regenerative Engineering (Sponsor: Re- generative Engineering Society), Irvine, CA				
Dec 4–6, 2017	International Conference on CRISPR Technologies (Sponsor: SBE), Raleigh, NC				
Dec 13–15, 2017	International Conference on Epigenetics and Bioengineering (Sponsored by SBE), Miami, FL				
Jan 8–10, 2018	8th International Conference on Biomolecular Engineering (ICBE Asia 2018; Sponsor: SBE), Singapore				
Mar 13–14, 2018	10th Annual Midwest Regional Conference, Chicago, IL				
AIChE Webinars					
Nov 15, 2017	Engineering a Delicious Thanksgiving Feast				
Nov 16, 2017	Sponsored Webinar: Use Your Data to Its Full Potential to Pre- vent Outages				
Dec 13, 2017	Sponsored Webinar: How to Safely Sample Fluid Heat Trans- fer Systems				

Officers and Contact Information			
Chair	Janet Werner		
Chair Elect	Mike Schultz		
	Beth Carter		
Chair Programming	Robert Tsai		
Secretary	Nick Guzman		
Treasurer	Joe Guido		
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	Dennis O'Brien		
	Ellen Kloppenborg		
House Committee	Arwa Hasan		
	Asmara Soomro		
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	Janet Werner Janet.werner8@gmail.com		

#### AICHE CHICAGO SECTION

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Homer Glen, IL 60491 aichechicago@gmail.com We are on the web www.aiche.org/Chicago

### We want you for AIChE-Chicago!

## We need your help!

How many opportunities can you find to learn project management, delegation and leadership skills for free? Becoming an officer in the Chicago Section of AIChE is such an opportunity. While you're learning new skills, your local network grows. Just about all of us are either undergoing a career change, contemplating a career change, or are wondering if our career will be changed for us. Volunteering with AIChE is a way to add skills and accomplishments to your resume.

aichechicago@gmail.com

http://www.aiche.org/community/sites/local-sections/ chicago/announcements/volunteerism

## **Submitting Articles to AIChE Columns**

We welcome email submissions for our monthly newsletter. Commercial announcements are subject to the fee schedule below. News stories, editorials, technical or career related non-commercial contributions are always welcome with no charge. We consider job postings, announcements of for-fee training courses, expositions, conferences as commercial. Categorization of announcements is at the sole discretion of the Chicago AIChE Board of Directors. Chicago AIChE may publicize activities of interest to our members by cooperating professional societies and other non-profits without charge.

AICHE Publicity Committee	Academic (non-AICHE)		Company		Recruiters	
Fees	Per Month	Per Year	Per Month	Per Year	Per Month	Per Year
Advertisements (3X3)	100	450	150	675	N/A	N/A
Half-Page (~7"x 4.5")	280	1260	420	1890	N/A	N/A
Job Posting (Size?)	50	225	100	450	250	N/A
Special Sizing	Contact Publicity Committee aichechicago@gmail.com					

For the purchase of a year ad, customers have the option of changing ads/jobs month to month. Online payment can be done using <u>http://www.cvent.com/d/9cq5pw/4W</u>



Student and AICHE Member Related Postings are Free.