

### NEWS OF THE WEEK

MARCH 15, 2021

#### CBE IN THE NEWS

- [Lessons from a ‘devastating’ year with COVID-19](#)

#### DEPARTMENT’S SEMINAR/EVENTS:

- [CCST 2021 Spring Webinar Series](#)
  - **Mar. 17, 2021 @ 10 AM**  
**Karthish Manthiram**, Massachusetts Institute of Technology  
10:00 AM Virtual Seminar – [Registration](#) required  
[“Controlling Interfacial Electron and Atom Transfer Reactions for Chemical Synthesis”](#)
  - **Mar. 31, 2021 @ 10 AM**  
**Joshua Snyder**, Drexel University  
10:00 AM Virtual Seminar – [Registration](#) required  
[“Sustainable Synthesis of Functional Nanomaterials for Energy Applications”](#)
  - **Apr. 21, 2021 @ 10 AM**  
**Matthew Kanan**, Stanford University  
10:00 AM Virtual Seminar – [Registration](#) required
  - **May 05, 2021 @ 10 AM**  
**Rachel Getman**, Clemson University  
10:00 AM Virtual Seminar – [Registration](#) required  
[“Molecular-Level Insights into How Liquid Water Influences Catalytic Phenomena at Water/Catalyst and Water/Electrocatalyst Interfaces”](#)
- **CRiSP Seminar**
  - **Save the Date: Dr. Sambeeta Das, University of Delaware, Mechanical Engineering**  
Friday, May 7, 2021 at 10:00 AM  
More details coming soon
  - **Professor Jennifer M. Heemstra, Emory University**  
Friday, May 14, 2021 at 10:00 AM  
[Bilingual Peptide Nucleic Acids: Encoding the Languages of Nucleic Acids and Proteins in a Single Self-Assembling Biopolymer](#)  
[Click here](#) to register

#### UPCOMING CBE THESIS DEFENSE(S):

- 03/18/2021 @ 8:00PM – [Virtual Thesis Defense](#) Presentation of Jacob Anibal  
Thesis title: [“Understanding the Electrochemical Reduction and Coupling of Biomass Derived Carbonyl Species”](#)
- 03/19/2021 @ 2:00PM – [Virtual Thesis Defense](#) Presentation of Pierre Desir  
Thesis title: [“Microreactor Technology for Intensified Biomass Processing”](#)  
Join here: <https://udel.zoom.us/j/99200758774>  
Password: sacrecoeur

#### OTHER DEPARTMENT’S SEMINAR/EVENTS:

- **Mathematical Sciences Department**
  - **Sayas Numerics Seminar**  
Andrew Childs – University of Maryland, College Park  
Tuesday, March 16, 2021 at 3:30 PM  
[“Efficient quantum algorithm for dissipative nonlinear differential equations”](#)
  - **Discrete Mathematics Seminar**  
Cynthia Vinzant – North Carolina State and IAS  
Wednesday, March 17, 2021 at 1:20 PM  
[“Log-concavity, matroids, and expanders”](#)
  - **Inverse Problems and Analysis Seminar**  
Samuel Harris – Texas A&M University  
Wednesday, March 17, 2021 at 4:00 PM  
[“Non-local games and entanglement”](#)
- **Department of Physics and Astronomy**
  - **Dr. Julie Grollier, CNRS Thales Laboratory** Wednesday, March 17, 2021 at 10:030 AM [via Zoom](#) Password: 275985 *In this talk, I want to show that the joint development of new materials, nanodevices and algorithms is essential for the development of smart and environmentally friendly chips, which inherently learn from their physics (1). The goal of neuromorphic computing is to take inspiration from the architecture of the brain to build a low-power circuit for artificial intelligence. I will first give a brief overview of the state of the art of neuromorphic computing, highlighting the opportunities offered by emerging nanodevices in this field, and the related challenges. I will then show how physics can be exploited at the algorithm and device level to solve these challenges and unlock learning on a chip. I will illustrate the need for this material-algorithm co-development through examples of our work on an algorithm called Equilibrium Propagation that minimizes both error and energy of a dynamic system (2), and through the implementation of spintronic neural networks that communicate through radio-frequency waves (3, 4).*
- **Physical Chemistry Seminar**
  - **Dr. Sean Holmes, Florida State University**  
Wednesday, March 17, 2021 at 4:00 PM  
“Quadrupolar Solid-State NMR Spectroscopy of Pharmaceuticals and Nutraceuticals” via Zoom: <https://udel.zoom.us/j/98093174367>
- **Fireside Chat: How to Launch Bio Startups**
  - Interested in starting a [bio company](#)? Get involved in the early-stage startup ecosystem. Join us for a fireside chat with Petri on technology readiness, recruiting a team, fundraising strategy and more. Wednesday, Mar. 17 at 5:00 PM  
[RSVP here](#) for more information
- **Electrical and Computer Seminar**
  - **Dr. Roger Hoerl, Union College**  
Friday, March 19, 2021 at 10:30 AM  
[“Ridge Regression: A Historical Context”](#)  
via Zoom: <https://udel.zoom.us/j/98103934403>

#### JOBS/RECRUITING:

- **DOW**  
Position: [BEST Symposium – 2021](#) Building Engineering & Science Talent  
Posting #: R2012677  
Brief description: Dow is now accepting applications for the 15th annual Dow Building Engineering and Science Talent (BEST) Symposium. The application deadline is April 30, 2021. To ensure the safety of our participants and after a successful virtual 2020 BEST Symposium, this year’s Symposium will be held in a virtual format. The BEST symposium will be held on August 2nd – 5th, 2021. Dow’s BEST Symposium is primarily intended to introduce African American, Hispanic, Native American U.S. doctoral and postdoctoral scientists to the wide range of rewarding careers in industrial research, and in particular, the many opportunities with one of the world’s largest and leading materials science companies, Dow. This conference, developed jointly by our minority scientists and Ph.D. recruiting team, demonstrates our commitment to a diverse work force.

Available positions can be found on the Chemical & Biomolecular Engineering [opportunity website](#), so be sure to check it regularly.