

CHEMICAL ENGINEERING DEPARTMENT  
10.992 Student Seminar Series  
SPRING 2024

**All Student Seminars are MIT ONLY events and will be held in-person in room 66-110 unless otherwise noted.**

<b>MONDAY, February 12<sup>th</sup></b>		
3:00 pm	Nathan Stover	“Mechanistic Modeling of <i>In Vitro</i> Transcription Incorporating Effects of Magnesium Pyrophosphate Crystallization”
<b>MONDAY, February 26<sup>th</sup></b>		
3:00 pm	Mingrou Xie	“A Computational Roadmap for the <i>De Novo</i> Design of Organic Structure Directing Agents for Zeolite Synthesis”
3:30 pm	Jenna Fromer	“An Algorithmic Framework for Synthetic Cost-aware Decision Making in Molecular Design”
<b>MONDAY, March 4<sup>th</sup></b>		
3:00 pm	Xiaochen Du	“Accelerating Atomic-scale Simulations for Surface Reconstruction”
3:30pm	Lexy LeMar	“Multiphase Reaction Products of Atmospheric Alkoxy and Peroxy Radicals”
<b>MONDAY, March 11<sup>th</sup></b>		
3:00 pm	Landon Schofield	“Dynamic Optimization of Proton Exchange Membrane Water Electrolyzers Considering Usage-based Degradation”
3:30 pm	John Vergados	“Pulsed Field Gradient NMR for Understanding Molecular Transport in Nonaqueous Flow Battery Membranes”
<b>MONDAY, March 18<sup>th</sup></b>		
3:00 pm	Shuo-Hsiu (Winson) Kuo	“Guided Differentiation of Human-induced Pluripotent Stems Cells toward Pancreatic Lineages Utilizing Endogenous Gene/miRNA Sensors”
3:30 pm	Gabriel Sanchez Velasquez	“CoPhMoRe - Molecular Recognition at Carbon Nanotube Interfaces”
<b>MONDAY, April 1<sup>st</sup></b>		
3:00 pm	Michael Li	“Guided Learning of Electrochemical Impedance Spectra Circuit Topologies”
3:30 pm	Shakul Pathak	“Intercalation Kinetics in Battery Electrodes: Beyond Butler-Volmer”

<b>MONDAY, April 8<sup>th</sup></b>		
3:00 pm	Fang- Yu Kuo	“Dual Salt Cation-swing for Electrochemical CO <sub>2</sub> Separation”
<b>MONDAY, April 22<sup>nd</sup></b>		
3:00 pm	Jennifer Fang	“Spatial Multiplexing and Quantitative miRNA Detection of Plant Tissue using Nanoliter Well Arrays”
3:30 pm	Yash Samantaray	“Electrochemically-resolved Acoustic Emissions for Li-ion Batteries”
4:00 pm	Alexis Dubs	“Continuous Manufacturing Testbed Development for a Monoclonal Antibody Production Process”