CHEMICAL ENGINEERING DEPARTMENT

10.991 Student Seminar Series
FALL 2024

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

MONDAY, September 9th		
3:00 pm	Enivrionment, Health, & Safety (EHS)	Safety Seminar
MONDAY, September 16th		
3:00 pm	Jackson Burns	"Accurate Solid Solubility Prediction for Arbitrary Process Conditions with Sobolev Training"
3:30 pm	Brian Carrick	"Gelation of End-Linked Polymer Networks as a Kinetically-Driven Phase Transition"
4:00 pm	Nicholas Casetti	"Single-Ended Mechanism Generation with Neural Network Potentials"
MONDAY, September 23rd		
3:00 pm	Talia Zheng	"Sustained release of highly concentrated solid antibody formulations from dual-network hydrogels"
3:30 pm	Nathan Morgan	"Predicting Solvation Properties in Solvent Mixtures"
4:00 pm	Chao-Chi Kuo	"Bio-inspired Electrocatalysts for Clean Energy Conversions"
MONDAY, September 30th		
3:00 pm	Raghav Acharya	"Development of Metabolic Model for the Enhancement of Recombinant Production in Pichia Pastoris"
3:30 pm	Hannah Boyce	"Investigating the Role of Phosphotyrosine Content of Extracellular Vesicles on Tumor-Immune Communication"
MONDAY, October 7th		
3:00 pm	Jacob Toney	"Graph neural networks for predicting metal–ligand coordination of transition metal complexes"
MONDAY, October 21st		
3:00 pm	Xiao Wang	"Advancing Closed-Loop Recycling of Nylon 6 Waste Through Mild Ammonolysis"
3:30 pm	Gabrielle Godbille-Cardona	"Double-Loop Circularity for Polyurethanes"

MONDAY, November 4th		
3:00 pm	Akash Ball	"Computational discovery of metal-organic frameworks with high water uptake capacity for next-generation membranes"
MONDAY, November 18th		
3:00 pm	Brittney Sunday	"Towards efficient bioprocess development through application of machine learning"
3:30 pm	Samuel Degnan-Morgenstern	"Learning the Material Physics of Graphite Electrodes through Image Inversion"
MONDAY, November 25th		
3:00 pm	Jihye Roh	"Higher-level Strategies for Computer-Aided Retrosynthetic Planning of Complex Molecules"
3:30 pm	Nicholas Sbalbi	"Modeling the Role and Size of Clusters in Multivalent Assembly"
MONDAY, December 2nd		
3:00 pm	Artem Petrov	"Simple Analytical Definition of the Flory-Huggins Parameter Leads to the Universal Behavior of Block Copolymer Melt Models"
3:30 pm	Emily Beyer	"Engineering Novel Materials for Nanoparticle-Mediated mRNA Delivery"
4:00 pm	Ava Self	"Targeted mRNA Delivery for Enhanced Vaccine Efficacy"
MONDAY, December 9th		
3:00 pm	Sean Wirt	"Microbial Production of Aniline"
3:30 pm	Nicholas Samulewicz	Uncovering Origins of Poor Photoluminescence Quantum Yield in 2D hybrid Metal Organic Chalcogenolates (MOCs)