

Chemical Engineering Student Seminar Day – April 27, 2023 **Location: Dupuis 215****Time: 9:00am****Chairs: Dr Hudon (9-10:20) & Dr. Barz (10:30-11:50)****Co-Chairs: Jakob Straznicky & Lauren Gibson**

TIME	SPEAKER	SUPERVISOR	TITLE
9:00am	Sonia Battista	Guay	Distributed extremum-seeking control with nonlinear gain for a class of optimization problems
9:20am	Telema Harry	Guay	Autonomous Navigation and Station-keeping of High-Altitude Balloon Platforms
9:40am	Ali Keshani	Guay	Multi-Agent Consensus Based Distributed Optimization Over Undirected Networks with Time Varying Cost Function
10:00am	Maryam Mohamadi	Guay	A model-free reinforcement learning design technique via Lie-Bracket averaging for a class of nonlinear systems
10:20am	Break		
10:30am	Maryam Ghazizade Fard	Koupaie	Performance prediction of anaerobic digestion of pulp and paper sludge coupled with hydrothermal pre-treatment using machine learning algorithms
10:50am	Kody Kazda	Li	Piecewise-Linear -Approximators For Lower-Bounding Non-Convex Global Optimization Problems
11:10am	Mohammadreza Azarshab	Barz/Dinh	Selective glycerol oxidation to formate using carbon-based electrode with nickel and copper catalyst
11:30am	Katie Sciborski	Barz	Optimization of a Ternary Electrolyte for a Non-Aqueous Vanadium Hybrid Battery-Supercapacitor

LUNCH 11:50am – 1:20pm

Chemical Engineering Student Seminar Day – April 27, 2023 Location: Dupuis 215**Time: 9:00am Chairs: Dr. Barz (1:20-2:40) & Dr. Parent (2:50-3:50) Co-Chair: Opeyemi Ajogbeje & Behnam Nourmohammadi Khiarak**

TIME	SPEAKER	SUPERVISOR	TITLE
1:20pm	Hayden Deacon	Hutchinson	Scalable Routes to Block Copolymers via Cu-mediated Reversible Deactivation Radical Polymerization
1:40pm	Connor Sanders	Cunningham	Curious Adventures in of Block-Random Copolymers in Aqueous Solution and Their Role in Emulsion Polymerizations
2:00pm	Manpreet Kaur	Cunningham/ Walia	Synthesis and Characterization of Polymeric Nanoparticles for In Vivo Drug Delivery
2:20pm	Olga Torres Rocha	Cunningham/ Champagne	Non-covalent surface modification of cellulose nanocrystals using block copolymers
2:40pm	Break		
2:50pm	Alex Tremblay	Parent	A CO ₂ regenerable weakly basic chemisorbent for organic acid recovery
3:10pm	Maryam Aghili	Docoslis	Electrochemically Deposited Silver Nanostructures on Reduced Graphene Oxide Hydrogels as Sensitive SERS Substrates
3:30pm	Shamim Azimi	Docoslis	An Electric Field-Assisted SERS Sandwich Assay for Sensitive Detection of Biomolecules