

	Wednesday June 12		Thursday June 13		Friday June 14	
8:30 - 9 AM	Coffee & danish		Coffee & danish		Coffee & danish	
9 AM - Noon (Coffee break 10:20-10:40 AM)	From solar to stellar astrophysics		Stellar evolution		Stellar formation	
	Topics	Instructor	Topics	Instructor	Topics	Instructor
	<ul style="list-style-type: none"> The sun as a star Corona and wind Magnetism and dynamo Activity cycle, eruptive events, and radiative variability 	Paul Charbonneau (UdeM)	<ul style="list-style-type: none"> What is a star ? The HR diagram and parameters that determine how a star evolves Equations of stellar structure: hydrostatic balance, energy transport, nuclear burning, stellar evolution timescales Introduction to the MESA code Basic ideas in stellar evolution: central density/temperature diagram and mapping to the HR diagram; core vs shell burning and giants Using MESA to run a 1 solar mass model from PMS to white dwarf 	Andrew Cumming (McGill)	<ul style="list-style-type: none"> Birth properties of stars Structure and Turbulence in Molecular Clouds Fluid instabilities and fragmentation scales Protostellar cores and disks Feedback interactions in star formation 	Chris Matzner (U. of Toronto)
Noon - 1:30 PM	Lunch		Lunch		Lunch	
1:30 - 4:30 PM (Coffee break 3:00 - 3:20 PM)	Bottom of the main sequence		Massive stars and stellar winds		Stellar death	
	Topics	Instructor	Topics	Instructor	Topics	Instructor
	<ul style="list-style-type: none"> Solar neighborhood Young associations and stellar dynamics Very low-mass stars Brown dwarfs Planetary-mass objects 	Jonathan Gagné (UdeM)	<ul style="list-style-type: none"> Massive stars - The massive stars zoo; evolution in the upper HR diagram; extra-galactic massive stars; starbursts; population III stars Stellar Winds - Observational signatures; isothermal winds; line driven winds; dust driven winds 	Laurent Drissen (U. Laval) & Nicole St-Louis (UdeM)	<ul style="list-style-type: none"> White dwarfs - Basic properties; white dwarf atmospheres; the cooling problem; spectral evolution Neutron stars - Core-collapse Supernovae; TOV equation and equation of state; pulsars; binary neutron star mergers and their GWs Black holes - Early history; the Schwarzschild solution: basic properties and implications; how are BH detected: the basics of accretion; bringing in rotation: the Kerr solution, the most general BH; esoteric topics 	Pierre Bergeron (UdeM), Vanessa Graber (McGill) & Serge Pineault (U. Laval)