



A Celebration of Cosmic Discovery

May 27 - 29, 2026

CANADIAN INSTITUTE FOR THEORETICAL ASTROPHYSICS

University of Toronto

60 St. George Street

M5S 3H8, Ontario, Canada

Day 1 - May 27, 2026

TIME	Room MP203
8:00 AM	Registration
9:00 AM	Introductory remarks: Director Shantanu Basu
9:10 AM	Welcome remarks: President Melanie Woodin, Dean Stephen Wright, Prof. Art McDonald
9:30 AM	Dick Henriksen - Recollection and Recognition
9:50 AM	Peter Martin - CITA's first year 1984-85
10:10 AM	Dick Bond - Cosmology through the past four decades
10:30 AM	Coffee break - Lobby of MP203
11:00 AM	Scott Tremaine - The densest stellar systems: the dynamics of galactic nuclei
11:20 AM	Ue-Li Pen - Four decades: from cosmic strings to FRBs
11:40 AM	Vicky Kaspi - Pulsars, LPTs, FRBs. Oh My! Fun with CHIME and the Radio Sky
12:00 PM	Photo session
12:30 PM	Lunch and Poster Session (Physics Lounge)
2:30 PM	Sara Seager - From Astrophysics to Biophysics: membrane curvature and the potential for life beyond Earth
2:50 PM	Pratika Dayal - The emergence of galaxies and black holes in the first billion years
3:10 PM	Dongwoo Chung - The future of line-intensity mapping, near and far
3:30 PM	Coffee break - Lobby of MP203
4:10 PM	Lloyd Knox - CMB Science since CITA and the current status of the Standard Cosmological Model
4:30 PM	Matt Holman - Pan-STARRS and Rubin searches for distant planets
4:50 PM	Simon White - Solution to an old puzzle: the world is flat!
5:10 PM	End of Day 1

CITA@40 Day 2 - Morning

TIME	Room: MP203 Chair: Subha Majumdar	Room: MP102 Chair: Sara Seager	Room: MP118 Chair: Gibwa Musoke
	Cosmology and LSS	ISM/Star Formation	GW/BH/NS/WD
9:00 AM	Albert Stebbins - Where Linear Theory Doesn't Work	Margot Mandy - Hydrogen Molecules in Collision	Maxim Lyutikov - Astrophysical Fast Radio Bursts: the plasma physics frontier
9:20 AM	Glenn Starkman - The Universe is not statistically isotropic	Viswesh Marthi - The smallest scales in the ionised ISM	Mikhail Medvedev - Theory of striped dynamic spectra of the Crab pulsar's high-frequency interpulse
9:40 AM	Tarun Souradeep - BipoSH: Structured test bed for cosmic isotropy violation	Aris Tritsis - Ambipolar diffusion and the mass-to-flux ratio in turbulent collapsing clouds	Sharon Morsink - The masses and radii of the neutron stars characterized by NICER
10:00 AM	Rien van de Weygaert - Dynamics of the Cosmic Web	Peter Barnes - Adventures in Conquering the Galaxy	Rachid Ouyed - Probing Neutron Star Core Physics and Magnetization with SLSNe
10:20 AM	Discussion	Discussion	Discussion
10:30 AM	Coffee Break - Physics Lounge	Coffee Break - Physics Lounge	Coffee Break - Physics Lounge
	Cosmology and LSS	Disks to Planets	GW/BH/NS/WD
11:00 AM	Levon Pogosian - Sound-horizon-agnostic approaches to the Hubble tension	Phil Armitage - Accretion astrophysics: past, present and future	Eric Poisson - Nonlinear dynamical tides in compact binary inspirals
11:20 AM	Doga Tolgay - Uncovering CO Emission Correlations for Mock-Map Generation	Matthew Browning - Diffusion free simulations and theory of stellar/planetary convection	Kipp Cannon - Direct Inference of the Hubble Parameter from Compact Binary Collision
11:40 AM	Suroor Seher Gandhi - Measuring cosmic bulk flow with kSZ velocity reconstruction	Ralph Pudritz - Disk Winds and Planet Formation: a New Paradigm Emerges	Ido Ben-Dayan - GW, PTA, CMB and Neff Bounds
12:00 PM	Discussion	Terrence Tricco - Global Accretion Disc Simulations of the Magneto-Rotational Instability	Danat Issa - Probing the origin of r-process nucleosynthesis
12:20 PM	Free time	Discussion	Discussion
12:30 PM	Lunch Break (lunch not provided)	Lunch Break (lunch not provided)	Virtual SKA Meeting / Idealab (MP1306)
			12:30-13:00 Adam Dong - Introduction to the Square Kilometre Array

CITA@40 Day 2 - Afternoon

TIME	Room: MP203 Chair: Matt Johnson	Room: MP102 Chair: Norm Murray	IdeaLab (MP1306) Chair: Kristine Spekkens & Pratika Dayal
	Cosmology and LSS	Planets/Planetary Science	
2:00 PM	Selim Hotinli - Cosmology and Astrophysics from kSZ Tomography	Man Hoi Lee - Exoplanets in Binary Star Systems	13:00-13:30 Michael Rupen - Canada's role in SKA design & construction
2:20 PM	Andrei Frolov - King's Tour Inflation	Cristobal Petrovich - The Dynamical Lives of Cold Neptunes	13:30-14:00 Toby Brown - The Canadian SKA Regional Centre (CanSRC): Current Activities and Roadmap
2:40 PM	Evan McDonough- The Status of the Scalar Spectral Index	Janosz Dewberry - Orbital asynchronization and circularization by tidally driven inertial waves	14:00-14:30 Alice Curtin - The SKA within the Canadian Radio Astronomy Ecosystem
3:00 PM	Rajendra Gupta - Aspects and prospects of the CCC+TL cosmological model	Discussion	14:30-15:00 Break
3:20 PM	Discussion	Free time	15:00-15:30 Kristine Spekkens - Early SKA Science and Community Involvement
3:30 PM	Coffee Break - Physics Lounge	Coffee Break - Physics Lounge	15:30-16:30 Chris Willott et al: Open Discussion & Panel moderated by ACACS
	Cosmology	Cosmology	
4:00 PM	Meng-Xiang Lin - Evidence of Interactions between Dark Axions and Dark Baryons	Hanno Rein - How to write the fastest N-body code in the world	End at 16:30
4:20 PM	Anupam Mazumdar - How to witness quantum nature of gravity	Nathan Carlon - WebSky2.0: a pipeline for mock observations of the CMB, galaxies and LIM	
4:40 PM	Lyman Page - CmbITA	Jose Gherzi - Early Universe Cosmology and strong gravity phenomenology from scratch	
5:00 PM	Gil Holder - The CMB at Radio Wavelengths	Carlo Contaldi: Time-Resolved Weak Lensing with Gravitational Waves	
5:20 PM	Discussion	Discussion	
5:30 PM	End	End	
6:00 PM	Banquet at Chelsea Hotel in the Mountbatten Room, 33 Gerrard Street West		

CITA@40 Day 3 - Morning

TIME	Room: MP118 Chair: Lyman Page	Room: MP137 Chair: Sharon Morsink	Room: MP203 Chair: Ue-Li Pen
	GW/BH/NS/WD	Black holes/binaries	Galaxies and galaxy formation
9:00 AM	Harald Pfeiffer - Numerical relativity simulations of binary black holes	Mark Dodici - Dynamics of stellar binaries orbiting supermassive black holes	Rennan Barkana - 21-cm cosmology: from dark matter to the dark ages
9:20 AM	Jim Stone - Modeling Luminous Black Hole Accretion Flows	Ariel Chitan - Disc Disruption and Accretion Dynamics in SMBH Binaries	Kristine Spekkens - HI Disks and Cosmological Galaxy Evolution: Past, Present and Future
9:40 AM	Samaya Nissanke - New Perspectives onto the Universe in the Multi-Messenger Astronomy Era	Doron Chelouche - Probing Bare Accretion Disks around Active Supermassive Black Holes	Lawrence Widrow - Emergence of Phase Spirals in Perturbed Stellar Disks
10:00 AM	Gibwa Musoke - Transitional accretion disks around black holes	Rachel Webster - Testing the Diskwind Model of AGN	Raymond Carlberg - Dark Matter Subhalo Heating of Stellar Streams
10:20 AM	Discussion	Discussion	Discussion
10:30 AM	Coffee Break - Physics Lounge	Coffee Break - Physics Lounge	Coffee Break - Physics Lounge
	Dark Matter	ISM and galaxies	Galaxies and galaxy formation
11:00 AM	Leo Kim - Constraining dark compact objects with gravitational wave lensing	Chris Matzner - Stellar shock emergence in compact aspherical supernovae	Subha Majumdar - The 'best' rotation curve of the Milky Way
11:20 AM	Zachary Picker - Dark matter hail: forming and finding macroscopic dark matter	David W. Hogg - New directions in stellar dynamics	Sihao Cheng - A novel view of the Milky Way disk
11:40 AM	Jonathan Sievers - Putting the "Cold" in Cold Dark Matter	Cheng Chen - Punching the Disk: How Decoupling Black Holes Drive Repeating AGN Flares	Arif Babul - Windy and Cool: Radiative Turbulence and the Origin of Multiphase Structure in the CGM
12:00 PM	Joseph Bramante - The Future of High Mass Dark Matter	Discussion	Amr El Zant - Gas fluctuations and cusp-core transformation in dwarf galaxies
12:20 PM	Discussion	Free time	Discussion

CITA@40 Day 3 - Afternoon

TIME	Room: MP118 Chair: Harald Pfeiffer	Room: MP137 Chair: Margot Mandy	Room: MP203 Chair: Yanqin Wu
	Dark Matter	Cosmology & LSS: Instrumentation	Galaxies and galaxy formation
12:30 PM	Lunch Break (lunch not provided)	Lunch Break (lunch not provided)	Lunch Break (lunch not provided)
2:00 PM	Junwu Huang - Beyond Standard Model Secondaries	Qitong Tan - ML based large-scale radio interferometric imaging algorithms	Seiji Fujimoto - Probing the Seeds and Growth of Early Black Holes with JWST
2:20 PM	Andrew Buchanan - Searching for High Mass Dark Matter with the LMC	Nicholas Battaglia - FYST and CCAT	Rahul Kannan - Modelling high redshift structure formation and reionization in the JWST era
2:40 PM	Alex Hayes - Particle Production of Dark Matter During Inflation	Roberto Abraham - First light with MOTHRA	Huanqing Chen - Quasar pairs at $z > 5$
3:00 PM	Kris Sigurdson - NSphere: Efficient Evolution of Spherical Self-Gravitating Halos with Dark Matter Self-Interactions	Eva Silverstein: Yes-boundaries wave functions of the universe.	Norm Murray - Quasar Winds and Quasar Mode Feedback
3:20 PM	Discussion	Discussion	Discussion
3:30 PM	Coffee Break - Idealab	Coffee Break - Idealab	Coffee Break - Idealab
	First Stars	Unstructured Time - IdeaLab	Galaxies and galaxy formation
4:00 PM	Shantanu Basu - Magnetic Field Effects on Pop III and DCBH Formation	Unstructured Time - IdeaLab	Thomas Quinn - Modeling Stellar Feedback and the Circumgalactic Medium
4:20 PM	Vasili Pustovit - Resolving Pop III Fragmentation	Unstructured Time - IdeaLab	Nir Shaviv - When the galaxy kicks-back
4:40 PM	Discussion	Unstructured Time - IdeaLab	Discussion
5:00 PM	End	End	End

Zoom links

DAY 1 (PHYSICAL ROOM: MP203)

REGISTRATION AT: [LINK](#)
MEETING ID: 880 9493 3881
PASSCODE: 819713

DAY 2: MORNING SESSION

MP203
Registration at: [LINK](#)
Meeting ID: 880 9493 3881
Passcode: 819713

MP102
Registration: [LINK](#)
Meeting ID: 899 4700 7174
Passcode: 247992

MP118
Registration at: [LINK](#)
Meeting ID: 854 2850 0800
Passcode: 603140

DAY 2: AFTERNOON SESSION

MP203
Registration at: [LINK](#)
Meeting ID: 880 9493 3881
Passcode: 819713

MP102
Registration at: [LINK](#)
Meeting ID: 899 4700 7174
Passcode: 247992

MP1306 (Idealab)
Registration at: [LINK](#)
Meeting ID: 895 6396 3050
Passcode: ska

DAY 3: MORNING AND AFTERNOON SESSIONS

MP118
Registration at: [LINK](#)
Meeting ID: 854 2850 0800
Passcode: 603140

MP137
Registration at: [LINK](#)
Meeting ID: 824 7082 3313
Passcode: 421416

MP203
Registration at: [LINK](#)
Meeting ID: 880 9493 3881
Passcode: 819713