

Timescales in Astrophysics - CONFERENCE PROGRAM

R: Review Talk (25+5 mins)

C: Contributed Talk (15+5 mins)

Day 0 (Sun): Conference Welcoming

Jan 15

[18:00-20:00] Welcome Reception, Saadiyat Beach Club w/ Opening remarks by Marta Losada

Day 1 (Mon) - Jan 16 [Location: A6-007]

Session 1: Introduction [Chair: Andrea Macciò]

[09:00-09:15] Welcoming Remarks: Arlie Petters, NYUAD Provost, Andrea Macciò and Stéphane Courteau (Conference Chairs)

[09:15-10:15] R: The Concept of Time: A Philosophical Perspective: Kevin Coffey (NYUAD) and Matthew Kleban (NYU)

[10:15-10:35] C: Timescales circa 2000: Ted von Hippel (ERAU)

[10:35-11:00] Coffee Break

Session 2: Planetary Formation Scenarios [Chair: Ted von Hippel]

[11:00-11:30] R: Timescales of Planetary Formation: Lisa Kaltenegger (Cornell) [REMOTE]

[11:30-11:50] C: Planet Formation Simulations: Samuele Crespi (NYUAD)

[11:50-12:10] C: Timescales in planetary orbits: an application to habitable worlds: Nikolaos Georgakarakos (NYUAD)

[12:10-12:30] C: Exoplanet Search and Characterization Programs from Space: Giampaolo Piotto (Padova)

[12:30-14:00] Lunch

[14:00-14:20] C: Exoplanetary Modelling using First JWST Observations: Jasmina Bleicic (NYUAD)

Session 3: Star Formation Scenarios [Chair: Ian Dobbs Dixon]

[14:20-14:50] R: Timescales of Star Formation: Mark Krumholz (ANU)

[14:50-15:10] C: Gravitationally unstable disks: Evgeny Griv (Ben Gurion)

[15:10-15:40] Coffee Break

Session 4: Stellar Evolution [Chair: Ian Dobbs Dixon]

[15:40-16:00] C: The impact of the Galactic tidal field on the dissolution time of star clusters: Bekdaulet Shukirgaliyev (Nazarbayev University)

Day 2 (Tue) - Jan 17 [Location: A6-007]

Session 1: Stellar Evolution [Chair: Mark Krumholz]

[09:00-09:30] R: Seismic age determination - current performance and challenges: Marie-Jo Goupil (Paris)

[09:30-10:00] R: Age Precision and Accuracy from Stellar Evolution: Ted von Hippel (ERAU)

[10:00-10:20] C: The 'dynamical clock': dating the internal dynamical evolution of star clusters with Blue Straggler Stars: Emanuele Dalessandro (INAF/Bologna)

[10:20-11:00] **Coffee Break**

Session 2: Galaxy Dynamics [Chair: Aura Obreja]

[11:00-11:30] R: Timescales of Galaxy Dynamics: Eric Emsellem (ESO)

[11:30-11:50] C: Timing the size evolution of quiescent galaxies: Ivana Damjanov (SMU)

[11:50-12:10] C: Gauging the secular evolution of galaxy disks: Enrico Corsini (Padova) [REMOTE]

[12:15-13:45] **Lunch**

Session 3: Galaxy Evolution [Chair: Luis Ho]

[13:45-14:15] R: Timescales of Galaxy Quenching: Sara Ellison (UVic)

[14:15-14:35] C: How chemical enrichment and starbursts tell the tale of galaxy evolution: Florent Renaud (Lund)

[14:35-14:55] C: Chemical Enrichment in the LMC: Randa Asad (AU Sharjah)

[14:55-15:25] **Coffee Break**

Session 4: Galaxy Evolution [Chair: Sara Ellison]

[15:25-15:55] R: Timescales in Galaxy Evolution: Avishai Dekel (HU) [REMOTE]

[15:55-16:15] C: Gas cooling and accretion in the CGM at high redshifts: Aura Obreja (LMU)

[16:15-16:35] C: Galaxy structure at the edge of time with AutoProf: Connor Stone (UdeM)

BANQUET

[19:30-23:00]

Evening brunch at the Si Ristorante Italiano & Bar in the Saadiyat Rotana Resort and Villas

Day 3 (Wed) - Half Day - Jan 18 [Location: A6-007]

Session 1: Instrumentation and Multi-messenger Astronomy [Chair: Francesco Arneodo]

[09:30-10:00] C: Measuring the timescale of the universe: Eric Linder (LBL) & David Erskine (LLNL) [REMOTE]

[10:00-10:30] R: Astrophysical timescales with future extremely large telescopes (ESO): Paolo Padovani (ESO)

[10:30-11:00] R: All the dark we cannot see: the timescales of dark matter detection: Laura Baudis (Zurich)

[11:00-11:20] **Coffee Break**

Session 2: Multi-messenger Astronomy [Chair: Paolo Padovani]

[11:20-11:50] R: Gravitational-wave and multi-messenger astronomy as new probe along the cosmic history: Marica Branchesi (Gran Sasso)

[11:50-12:10] C: How prepared are we for the new observing run of LVK?: Andrea Melandri (INAF - OAR)

[12:10-12:30] C: Prospects and challenges for Optical/Infrared counterparts of gravitational wave sources in the Vera Rubin Era: Silvia Piranomonte (INAF - OAR)

[12:30-12:45] **Group Photo**

[12:45] **Lunch**

Recommended visit: the Louvre Abu Dhabi

Departure from NYUAD campus at 2pm; return at 6pm

Day 4 (Thu) - Jan 19 [Location: A6-007]

Session 1: Compact Objects [Chair: Marica Branchesi]

[9:00-9:30] R: Timescales of Planetary Formation: Lisa Kaltenegger (Cornell) [REMOTE]

[09:30-10:00] R: Time Variability of Accreting Neutron Stars and Pulsars: Luciano Burderi (Cagliari)

[10:00-10:20] C: Millisecond X-Ray Pulsars: Andrea Sanna (Cagliari)

[10:20-11:00] Coffee Break

Session 2: Compact Objects [Chair: Elena Dalla Bontà]

[11:00-11:30] R: Ultra-fast radio transients on timescales of nanoseconds and longer: Jason Hessels (Amsterdam) [REMOTE]

[11:30-11:50] C: Fast timing and multi-band look at X-ray binaries: Aru Beri (IISER Mohali) [REMOTE]

[11:50-12:10] C: Highs and lows of a transitional millisecond pulsar - the ultimate campaign on PSR J1023+0038: M. Cristina Baglio (NYUAD)

[12:10-12:30] C: Spying on the quickly variable optical sky: millisecond pulsars and more: Alessandro Papitto (INAF/OAR) - presented by student Giulia Illiano (INAF/OAR)

[12:30-14:00] Lunch

Session 3: Black Holes [Chair: Sherry Suyu]

[14:00-14:20] C: Black Holes as Time Capsules: Tsvi Piran (HU) [REMOTE]

[14:20-14:50] R: The Lifecycle of the Most Massive Black Holes and Galaxies: Luis Ho (Kavli/Peking)

[14:50-15:10] C: Growth of Supermassive Black Holes: Igor Chilingarian (CfA)

[15:10-15:40] Coffee Break

Session 4: Black Holes [Chair: Girish Kulkarni]

[15:40-16:00] C: Black Hole Masses in Quasars over Cosmic Timescales: Elena Dalla Bontà (Padova)

[16:00-16:20] C: GR simulations of accretion flows onto merging SMBH: Bruno Giacomazzo (Milan-Bicocca)

[16:20-16:40] C: AGN Variability: Mirko Krumpe (AIP)

[16:40-16:55] Flash talks (tentative)

Jwahir Alnaqbi (NYUAD), Damir Gasymov (MSU), Komesh Toktarkhan (Nazarbayev Univ.), Aigerim Otebay (Fesenkov Astrophysical Institute)

Day 5 (Fri) - Jan 20 [Location: A6-007]

Session 1: Cosmic Timescales [Chair: Stéphane Courteau]

[09:30-10:00] R: Timescales of the Expanding Universe (H0): Sherry Suyu (MPA)

[10:00-10:30] R: Timescales of Cosmic Reionization: Girish Kulkarni (Tata Institute)

[10:30-11:00] **Coffee Break**

Session 2 [Chair: Stéphane Courteau]

[11:00-11:15] Flash Talks (tentative)

Victoria Toptun (MSU), Vladimir Goradzhyanov (MSU), Debora Lančova (Silesian), Eva Sramkova (Silesian)

[11:15-12:00] Wrap-up

[12:00 - 13:30] **Lunch**

[18:30-20:00] **PUBLIC LECTURE: Black Hole Survival Guide**

with Janna Levin (Barnard / Columbia)

Host: Andrea Macciò

[20:00] **Evening Banquet (A6, NYUAD)**

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