CRISOL25 meeting program v1.33

May 12-16, 2025, Toledo (Spain)

Link to updated version of program.
Link to list of talk abstracts.
Link to list of poster abstracts.

Monday May 12, 2025

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| 08:00-08:45 | Registration | |
| 08:45-09:00 | 8:45-09:00 Welcome | |
| 09:00-09:45 | Invited: The Cosmic Crisol in the JWST era: insights and puzzles from an observational and theoretical perspective | Rachel Somerville Mark Dickinson |
| 09:45-10:00 | Luminous galaxies in the early Universe | Stefano Carniani |
| 10:00-10:15 | 0:00-10:15 How did it all start? Searching for galaxies 100-300 Myr after the Big Bang | |
| 10:15-10:30 | 0:15-10:30 A Glimpse of an Ultra-Faint ~10^5 Msun PopIII Galaxy Candidate Through Abell S1063 | |
| 10:30-10:45 | 0:30-10:45 Constraining the Topology of Cosmic Reionization Using NIRCam WFSS Observations | |
| 10:45-11:00 | 10:45-11:00 Metallicity of galaxies at the tail-end of the Epoch of Reionisation | |
| 11:00-11:30 | Posters and coffee break | |
| 11:30-11:45 | Evidence for Radiation-Dominated Feedback in Nearby Analogs to Early Starbursts | Lena Komarova |
| 11:45-12:00 | Galaxy Mergers in the Epoch of Reionization | Qiao Duan |
| 12:00-12:15 | A first look at the ionised gas kinematics of high-redshift galaxies | Lola Danhaive |
| 12:15-12:30 | JWST Measurements of [O/Fe] Ratios and Implications for Chemical Enrichment in Early Galaxies at z~10 | Minami Nakane |
| 12:30-13:00 | Poster flash talks | |

| 13:00-15:00 Lunch break |
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| А | Afternoon session 02 (Redshift Frontier) chair: Tanio Diaz Santos | | | |
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| 15:00-15:30 | Invited: Census of high-z galaxies (online) | Rohan Naidu | | |
| 15:30-15:45 | An evolved protocluster in the early Universe: the birth of an ionised bubble and the (likely temporary) death of its resident galaxies | Callum Witten | | |
| 15:45-16:00 | SAPPHIRES: Slitless Areal Pure-Parallel High-Redshift Emission Survey | Eiichi Egami | | |
| 16:00-16:15 | 16:00-16:15 JWST Wide Field Spectroscopic Study of Galaxy Over-Density at z=8.47 Probing Intense Activity Inside a "Cosmic Crucible" at z=12 with JWST and ALMA 16:30-16:45 Formation of galaxies at cosmic dawn by feedback-free starbursts 16:45-17:15 Posters and coffee break | | | |
| 16:15-16:30 | | | | |
| 16:30-16:45 | | | | |
| 16:45-17:15 | | | | |
| 17:15-17:30 | A Glimpse of the New Redshift Frontier (online) | Vasily Kokorev | | |
| 17:30-17:45 | Digging into the nature of GNz11: rest-frame optical MIRI imaging | Alejandro Crespo Gómez | | |
| 17:45-18:45 | Discussion panel: redshift frontier | Andrea Ferrara, Steve Finkelestein, Pascal Oesch, Adriano Fontana | | |

| 20:00-21:30 | Welcome cocktail at Museo Santa Cruz, venue kindly offered by Junta de Castilla La |
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| | Mancha (regional government) |

Tuesday May 13, 2025

| Morning | n Mobasher | |
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| 09:00-09:30 | Invited: The rapid rise of massive quiescent galaxies in the first 2 Gyr | Anna de Graaff |
| 09:30-09:45 | Dynamical evidence of an overmassive black hole in a quiescent galaxy at z=2 | Drew Newman |
| 09:45-10:00 | MIDIS: Unveiling the Star Formation History in massive galaxies at 1 <z<4.5 analysis<="" spectro-photometric="" td="" with=""><td>Marianna Annunziatella</td></z<4.5> | Marianna Annunziatella |
| 10:00-10:15 | Galaxy assembly in the first billion years: Mini-quenching and more evidence for bursty SFHs | Tobias Looser |
| 10:15-10:30 | Investigating the abundance and nature of high-z quiescent galaxies | William Baker |
| 10:30-10:45 | Reconstructing the Histories of Dust-Rich Quiescent Galaxies up to $z \sim 3$ | Darko Donevski |
| 10:45-11:00 | Poster flash talks | |
| 11:00-11:30 | Posters and coffee break | |
| 11:30-11:45 | REBELS with ALMA & JWST: The build-up of massive galaxies in the early Universe | Lucie Rowland |
| 11:45-12:00 | Mind the gap: numerical experiments between kilo-parsec and parsec scale at high-redshift | Eden Girma |
| 12:00-12:15 | Unveiling the UV-brightest monsters in the distant Universe | Miroslava Dessauges- Zavadsky |
| 12:15-12:30 | Revealing the complex morphologies of high-z disk galaxies with JWST | Luca Costantin |
| 12:30-12:45 | Resolving star formation at Cosmic Noon using WFSS | Nor Pirzkal |
| 12:45-13:00 | The emergence of the Hubble sequence as seen by COSMOS-Web (online) | Marc Huertas-Company |

| 13:00-15:00 | Lunch break | | | | |
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| A | Afternoon session 04 (Stellar populations) chair: Stefano Carniani | | | |
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| 15:00-15:30 | 15:30 Invited: Unveiling the physical properties of the earliest galaxies: current mysteries and challenges revealed by JWST Surveys | | | |
| 15:30-15:45 | Importance of mergers in driving star formation and black hole activity from Cosmic Noon to Cosmic Dawn | David Puskas | | |
| 15:45-16:00 | The burstiness and mass dependence of star formation in low mass galaxies at z~4-5 | | | |
| 16:00-16:15 | 3,000 Ha emitters at z~4-7: a new tracer of galaxy build-up in the first ~1.5 Gyr | | | |
| 16:15-16:30 | Old stellar populations and hot gas in the most distant galaxies - JWST/MIRI results from the MIDIS-RED project. | | | |
| 16:30-17:00 | 16:30-17:00 Posters and coffee break | | | |
| 17:00-17:15 | Exploring Galaxy Interactions in the Early Universe through Resolved Hα Emission | | | |
| 17:15-17:30 | Revealing the parsec-scales details of high-z star-forming systems with JWST | Matteo Messa | | |
| 17:30-18:30 | Discussion panel: galaxy assembly | Mauro Giavalisco, Harley Katz, Jeyhan Kartaltepe, Paola Santini, Mauro Stefanon | | |

| 19:00-20:00 | Public talk by Luca Costantin at Sala Capitular Ayuntamiento de Toledo, kindly |
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| | organized by Ayuntamiento de Toledo (Town Hall) |

Wednesday May 14, 2025

| | Morning session 05 (ISM) chair: Darko Donevski | | | |
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| 09:00-09:30 | Four problems with dust in the early Universe that should keep you awake at night | Desika Narayanan | | |
| 09:30-09:45 | Investigating The Dust Attenuation Properties of 12 Massive Galaxies Using REBELS JWST NIRSpec and ALMA Observations | Rebecca Fisher | | |
| 09:45-10:00 | Forging the First Dust – Transition from Stellar to ISM Grain Growth in the Early Universe | Denis Burgarella | | |
| 10:00-10:15 | What made the dust so hot in a z = 8.3 galaxy? Case Study of MACS0416-Y1 | Anishya Harshan | | |
| 10:15-10:30 | 10:15-10:30 The formation of dust in the early Universe Origins of Carbon Dust in a JWST-Observed Primeval Galaxy at z~6.7 | | | |
| 10:30-10:45 | | | | |
| 10:45-11:15 | 10:45-11:15 Posters and coffee break | | | |
| 11:45-12:15 | Cosmic Cradles: The ISM and Nebular Properties of Early Galaxies revealed by JWST | Mirko Curti | | |
| 11:45-12:00 | 45-12:00 Probing chemical enrichment in star-forming galaxies using oxygen and argon abundances | | | |
| 12:00-12:15 | Tracing the chemical enrichment pathways of high-redshift star-forming galaxies | Thomas Stanton | | |
| 12:15-12:30 | Gas-phase metallicity gradients in galaxies at z~6-8 | Giacomo Venturi | | |
| 12:30-12:45 | Advanced Metallicity Determination with HOMERUN: New Frontiers in JWST Observations | Alessandro Marconi | | |
| 12:45-13:00 | Exploring the high-z ISM with HOMERUN | Bianca Moreschini | | |

| 13:00- <u>14:30</u> | Lunch break |
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| | Afternoon session 06 (ISM) chair: Mahsa Kohandel | | | |
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| 14:30-14:45 | 4:30-14:45 Exploring multi-phase chemical mixing in high-z analogues: new insights into nitrogen enrichment | | | |
| 14:45-15:00 | A multi-tracer, kpc-scale view of the gas, dust and stars in z~3 submillimeter galaxies | Beth Westoby | | |
| 15:00-15:15 | Revealing the parsec-scales details of high-z star-forming systems with JWST | Mahmoud Hamed | | |
| 15:15-15:30 | The cold gas of star-forming galaxies at cosmic noon | Ivanna Langan | | |
| 15:30-15:45 | Efficient Ionizers with Low H-beta+[OIII] Equivalent Widths: JADES Spectroscopy of a Peculiar High-z Population | Isaac Laseter | | |
| 15:45-16:00 | Spatially resolved properties of ionized outflows in star-forming galaxies from $z=3$ to 9 | Bruno Rodríguez del Pino | | |
| 16:00-16:30 | Posters and coffee break | | | |
| 16:00-16:30 | The role of multiphase galactic outflows in regulating star formation in the era of JWST | Ulrich Steinwandel | | |
| 16:45-17:00 | Exploring feedback in high-z galaxies through the eyes of ALMA and JWST | Eleonora Parlanti | | |
| 16:45-17:45 | Discussion panel: ISM (dust and gas) in the early Universe | Andy Bunker, Chiaki Kobayashi, Giulia Rodighiero, Irene Shivaei, Laura Sommovigo | | |

| 19:30-23:00 | Conference dinner at Cigarral del Ángel | l Custodio |
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Thursday May 15, 2025

| Morning session 07 (AGN) chair: Andrew Blain | | |
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| 10:00- 10:30 | The population of black holes in the early Universe and their interplay with galaxies in the JWST era | Roberto Maiolino |
| 10:30-10:45 | GA-NIFS: A high number of dual AGN at z ~ 3 | Michele Perna |
| 10:45-11:00 | The X-rays Strike Back: unlocking the formation of SMBHs in quasars at early cosmic times | Alessia Tortosa |
| 11:00-11:15 | JWST MIRI reveals the diversity of nuclear mid-infrared spectra of nearby type-2 quasars | Cristina Ramos Almeida |
| 11:15-11:30 | Seeking the rise of the first Massive Black Holes: evidence for an early super-Eddington growth? | Alessandro Trinca |
| 11:30-12:00 | Posters and coffee break | |
| 12:00-12:15 | Bubbles, outflows and lurking BHs: the novel JWST/NIRSpec view of high-z AGN | Giovanni Cresci |
| 12:15-12:30 | Discovery of two z~6.5 post-quasar galaxies in large ionised bubbles | Romain Meyer |
| 12:30-12:45 | GA-NIFS: Resolving AGN outflow properties at z~3-6 with JWST NIRSpec | Elena Bertola |
| 12:45-13:00 | Physical Pathways for JWST-Observed Supermassive Black Holes in the Early Universe (online) | Junehyoung Jeon |

| 13:00-15:00 Lunch break | 13:00-15:00 | Lunch break |
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| Afternoon session 08 (AGN) chair: Yoshi Fudamoto | | |
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| 1 15.00 15.15 | Powerful nuclear outflows and circumgalactic medium shocks driven by the most luminous quasar in the Universe | Tanio Diaz Santos |
| I 15·15-15·30 | Revolutionizing the Study of Reionization-Era Quasar Environments with ASPIRE | Jackie Champagne |

| 15:30-16:00 | The role of ISM substructure in shaping multiphase AGN outflows | Samuel Ward |
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| 16:00-16:15 | Remembrance of AGN models past: Learning the physical conditions | Aswin Vijayan |
| 16:15-16:30 | A JWST-ALMA synergy to unveil the early co-evolution of galaxies and supermassive black-holes | Francesco Salvestrini |
| 16:30-16:45 | Revealing supermassive black holes in the early universe using photometric variability | Alice Young |
| 16:45-17:15 | Give me a break: The Ambiguous Nature of Little Red Dots | Jenny Greene |

| 17:30-18:30 | TBC: private visit to historic tapestry exposition with a representation of 13th century Tablas Alfonsíes, kindly offered by Ayuntamiento de Toledo (Town Hall) and Catedral Primada de Toledo (most important cathedral in Spain from 1088 onwards, awarded by Pope Urbano II). |
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Friday May 16, 2025

| Morning session 09 (LRDs) chair: Cristina Ramos Almeida | | |
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| 09:00-09:15 | Broad-Line AGN at $3.5 < z < 6$: The Black Hole Mass Function and a Connection with Little Red Dots | Anthony Taylor |
| 09:15-09:30 | Evolved Stellar Populations at z \sim 7 - 8 in Little Red Dots Identified with JWST/NIRSpec | Bingjie Wang |
| 09:30-09:45 | The Host Galaxy (If Any) of the Little Red Dots | Changhao Chen |
| 09:45-10:00 | Challenging the AGN scenario for JWST/NIRSpec broad H-alpha emitters/Little Red Dots in light of non-detection of NIRCam photometric variability and X-ray | Mitsuru Kokubo |
| 10:00-10:15 | Dissecting Little Red Dots: Spatially resolved spectroscopy of faint broad-line AGN | Alberto Torralba |
| 10:15-10:30 | Unveiling Broadened Emission in LRDs: A Statistical Simultaneous Spectral Analysis with RUBIES NIRSpec | Raphael Hviding |
| 10:30-11:00 | Poster awardee talks | TBD |
| 11:00-11:30 | Coffee break | |
| 11:30-11:45 | The discovery of dual and offset "little red dots" with a pixel-by-pixel color selection method | Takumi Tanaka |
| 11:45-12:00 | Balmer Decrements in Little Red Dots: Investigating High-Redshift AGN Attenuation | Vanessa Brown |
| 12:00-13:00 | Discussion panel: AGN (and LRDs) | Yuichi Harikane, Michaela Hirschmann, Dale Kocevski |
| 13:00-13:10 | Closing remarks and adjourn | |