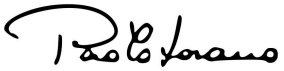
International Astronomical Union
Union Astronomique Internationale

POST MEETING REPORT FORM

1. **Meeting Identification Number:** Symposium 396
2. **Meeting Title:** Massive Galaxies Across the Universe
3. **Coordinating Division:** J Galaxies and Cosmology
4. **Dedication of meeting (if any):** None
5. **Location (city, country):** Naples, Italy
6. **Dates of meeting:** 9-13 June, 2025
7. **Number of participants:** 135
8. **Total Amount of IAU Grant funds received (in euros):** 20000
9. **Number of IAU Grant recipients:** 22
10. **List of represented countries: (25)** Australia Austria Botswana, Brazil, Canada, Chile, China, Denmark, Finland, France, Germany, India, Indonesia, Italy, Japan, Messico, Netherlands, Poland, South Africa Spain, Switzerland, Taiwan, UK, Emirates, US
11. **Anticipated number of separate papers in the proceedings:** 120
12. **Report submitted by:** Paolo Saracco
13. **Date and place:** 08/08/2025
14. **Signature of SOC Chairperson:**



Summary of the IAU Symposium 396 Massive Galaxies Across the Universe
Date: 2025 June 9 - 13
Venue: Naples, Italy
Coordinating IAU Division: Division J Galaxies and Cosmology

Scientific Organizing Committee (Female 10/Male 10)
Felipe Barrientos (Universidad Católica de Chile)
Davide Bevacqua (INAF IT, PhD)
Paula Coelho (University of São Paulo, Brazil)
Roberto de Propris (FINCA, Turku, FI & BIUST Botswana)
Anna Ferré-Mateu (IAC, Tenerife, ES)
Ignacio Ferreras (IAC, Tenerife, ES)
Karl Glazebrook (Swinburne University, AUS)
Johanna Hartke (FINCA, Turku, FI)
Michaela Hirschmann (CH)
Mariska Kriek (NL)
Wang Lan (Academy of Sciences, China)
Michalina Maksymowicz-Maciata (Bristol UK, PhD)
Danilo Marchesini (USA)
Nicola Napolitano (Univ. Federico II, IT)
Anna Pasquali (Universität Heidelberg, DE)
Rosalind Skelton (South Africa Astronomical Observatory)
Paolo Saracco (Chair; INAF, Osservatorio Astronomico di Brera)
Chiara Spiniello (Co-chair; Oxford University, UK)
Masayuki Tanaka (National Astronomical Observatory of Japan)
Daniel Thomas (University of Portsmouth, UK)

Local Organizing Committee (Female 4/Male 7)
Gabriella De Lucia (INAF - Osservatorio Astronomico di Trieste)
Fabio Fontanot (INAF - OA Trieste)
Anna Gallazzi (INAF - OA Arcetri)
Adriana Gargiulo (INAF - IASF)
Francesco La Barbera (INAF - OA Capodimonte)
Amata Mercurio (Univ. Fisciano)
Nicola Napolitano (Univ. Federico II)
Maurizio Paolillo (Univ. Federico II)
Paolo Saracco (INAF - OA Brera)
Crescenzo Tortora (INAF - OA Capodimonte)
Stefano Zibetti (INAF OA Arcetri)

(i) Final scientific programme
Number of invited speakers 9 (Female 5, Male 4)
Number of contributed talks 70 (Female 28, Male 42)
Number of posters 44 (Female 18, Male 24)

	Monday 9 June
09:00 - 10:00	REGISTRATION & COFFEE
10:00 - 10:15	**Paolo Saracco** (Chair SOC), **Chiara Spiniello** (Co-chair SOC) Welcome & Communications - 3 minutes VIDEO - KAVLI Price
Session	**The formation of massive galaxies at high-z**
10:15-10:45	**Gabriella De Lucia** - How, when and where did early massive quiescent galaxies form?

10:45 - 11:00	**Adam Carnall** - The Origins of Massive Galaxies
11:00 - 11:15	**Rhea-SIlvia Remus** - From Cosmic Dawn to Present Day: The Formation and Evolution of the Most Massive Galaxies from the DAWN and Magneticum Hydrodynamical Cosmological Simulations
11:15 - 11:30	**Carlo Cannarozzo** - Charting the back-in-time evolution of the scaling relations of early-type galaxies over the last 12 billion years
11:30 - 11:45	**Amrita Banerjee** - Unveiling Massive Quiescent Galaxies: Halo mass evolution with simulations and JWST
11:45 - 12:00	**Ángel Chandro Gómez** - The origin and evolution of massive quenched galaxies at z>2 in the state-of-the-art COLIBRE hydrodynamical simulations suite
12:00 - 12:15	**Lucas Kimmig** - Flaring Candles: Quenching and Rejuvenation in the High Redshift Universe – a Story of Rapid Starbursts, AGN Feedback and Environment
12:15 - 12:30	**Rafael Navarro-Carrera** - Euclid: The Most Massive Galaxies at the End of the EoR
12:30 - 12:45	**Mengyuan Xiao** - Cosmic Heavyweights: Dusty Giants, Massive Quiescents, and Mysterious Little Red Dots
12:45 - 14:30	LUNCH BREAK
14:30 - 15:00	**Karl Glazebrook** - Exotic early massive quiescent galaxies
15:00 - 15:15	**Shengdong Lu** - Is LCDM in tension? A comparison between GALFORM predictions and JWST observations at high redshift
15:15 - 15:30	**William Baker** - The abundance and nature of massive high-redshift quiescent galaxies from JADES spectroscopy and the FLAMINGO simulations
15:30 - 15:45	**Emiliano Merlin** - Evolved galaxies at the dawn of the Universe (a JWST perspective)
15:45 - 16:00	**Kosuke Takahashi** - From Low-Mass to High-Mass: Exploring the Nature of Balmer Break Galaxies at z~5
16:00 - 16:30	COFFEE BREAK
16:30 - 17:00	**Katherine Whitaker** - A Review of Massive Galaxy Formation: Rapid Star Formation and Early Quenching
17:00 - 17:15	**Struan Stevenson** - PRIMER+JADES reveal an abundance of massive quiescent galaxies at 2<z<5
17:15 - 17:30	**Kei Ito** - DeepDive: JWST/NIRSpec spectroscopy of massive quiescent galaxies at z~3-4 supplemented with the complete archival survey
17:30 - 17:45	**Sarah Bodansky**- JWST+ALMA reveal the build up of stellar mass in the cores of dusty star-forming galaxies at cosmic noon
17:45 - 18:00	**Enrico Di Teodoro** - Dark matter halos and scaling relations of extremely massive spiral galaxies

	Tuesday 10 June
Session	**Star formation histories and chemical evolution of massive galaxies**
09:30 - 10:00	**Claudia Maraston** - The stellar population properties of massive galaxies as resulting from stellar population models and observations
10:00 - 10:15	**Luis A. Diaz-Garcia** - Formation and evolution of the stellar content of massive galaxies in the J-PAS era

10:15-10:30	**Marianna Annunziatella** -Tracing the Early Growth of Massive Galaxies
10:30 - 10:45	**Alexandre Vazdekis** - Tiny Traces, Big Clues: Unveiling the Hidden Stellar Components in Massive ETGs
10:45 - 11:15	COFFEE BREAK
11:15 - 11:30	**Anna Rita Gallazzi** - The stellar metallicity and age scaling relations from LEGA-C as fossil records of massive galaxy evolution at cosmic noon
11:30 - 11:45	**Elham Eftekhari** - Unveiling the Evolution of Massive Galaxies through Near-Infrared Stellar Population Studies
11:45 - 12:00	**Novan Saputra Haryana** - Stellar Mass Assembly History of Massive Quiescent Galaxies since $z\sim4$: Insights from Spatially Resolved SED Fitting with JWST Data
12:00 - 12:15	**Chloe Cheng** - Decoding Massive Quiescent Galaxy Evolution: Age and Elemental Abundance Gradients and the Initial Mass Function at $0.6 < z < 3.0$
12:15 - 12:30	**Daniele Mattolini** - The scaling relations of stellar populations in local Universe's massive galaxies as a benchmark for galaxy evolution
12:30 - 12:45	**Themiya Nanayakkara** - Insights into z>6 star-formation histories and early cosmic chemical evolution from z>3 massive quiescent galaxies.
12:45 - 14:30	LUNCH BREAK
14:30 - 15:00	**Chiaki Kobayashi** - Modelling galactic chemical evolution and comparison to observations
15:00 - 15:15	**Jacqueline Antwi-Danso** - Alpha-enhancement in a massive quiescent galaxy at $z \sim 4$
15:15 - 15:30	**Aliza Beverage** - The chemical enrichment and assembly histories of massive quiescent galaxies with JWST
15:30 - 15:45	**Ayan Acharyya** - Unraveling past physical processes using present chemical abundance maps of galaxies: do simulations and observations agree?
15:45 - 16:00	**Rashmi Gottumukkala** - A spectroscopically-informed study of the star-formation histories of high-z massive galaxies with JWST
16:00 - 16:30	COFFEE BREAK
Session	**The Initial Mass Function across time and galaxies**
16:30 - 17:00	**Anne Hutter** - What physical processes drove the bright galaxies at cosmic dawn?
17:00 - 17:15	Francesco La Barbera (IMF) - The stellar IMF of massive galaxies: where do we stand?
17:15 - 17:30	Fabio Fontanot - Variations of the Stellar Initial Mass Function in Semi-Analytic Models
17:30 - 17:45	Ignacio Martin Navarro - Decoding the youth of massive ETGs: IMF measurements in young stellar populations
17:45 - 18:00	Jorick Vink - Very massive stars in Nitrogen-emitting galaxies

	Wednesday 11 June
Session	**Influence of internal and external physical processes, and of environment on the evolution of massive galaxies**
09:30 - 10:00	**Adam Muzzin** - The Role of Environment in the Formation of Massive Galaxies
10:00 - 10:15	**Tadayuki Kodama** - Galaxy formation in massive clusters at cosmic noon
10:15-10:30	**Marta Galbiati** - The accelerated growth of massive galaxies in a protocluster at z~3

10:30 - 10:45	**Jamie Lin** - Quiescent galaxies in FRESCO's GOODS-N and GOODS-S overdensities at z>~4
10:45 - 11:15	COFFEE BREAK
11:15 - 11:30	**Ian McConachie** - Too Massive, Too Old... Too Crowded? Environments of the First Quiescent Galaxies
11:30 - 11:45	**Seunghwan Lim** - On galaxies in z>5 JWST-discovered protoclusters
11:45 - 12:00	**Hideki Umehata** - Accelerated growth of the most massive galaxies in a z=3 proto-cluster
12:00 - 12:15	**Daria Zakharovaa** - The environmental history of massive galaxies
12:15 - 12:30	**Andrea Negri** - Probing high-z quiescents in simulated cluster of galaxies
Session	**Compact massive galaxies**
12:30 - 12:45	**Krzysztof Lisiecki** - Red and blue nuggets – the story of massive and compact galaxies at z~0.7 from the VIPERS
12:45 - 13:00	**Fernando Buitrago** - NGC1277: The First Massive Galaxy Without Dark Matter
13:00-13:15	**Eduardo Albuquerque Hartmann** - A massive relic galaxy in the early Universe: ZF-UDS-7329
13:15-13:30	**Ivana Damjanov** - Massive Compact Galaxies: New Insights from Euclid
	Free Afternoon

	Thursday 12 June
Session	**The internal structure, kinematics and dynamics of massive galaxies**
09:30 - 10:00	**Ling Zhu** - Dynamical structures of nearby massive galaxies from IFU observations
10:00 - 10:15	**Davor Krajnović** - A MUSE view on the stellar kinematics and the internal structure of the most massive galaxies
10:15-10:30	**Scott Croom** - Formation pathways for massive slow rotators
10:30 - 10:45	**Boris Sindhu Kalita** - Deconstructing galaxies at the Universe's busiest epoch
10:45 - 11:15	COFFEE BREAK
11:15 - 11:30	**Luca Costantin** - The structure of massive galaxies at 3<z<5 unveiled by MIRI/JWST
11:30 - 11:45	**Ryan Bagge** - Physical Drivers of Kinematic Disturbances in Massive Galaxies
11:45 - 12:00	**Andrew Newman** - Resolving Early Quiescent Galaxies (lensed)
12:00 - 12:15	**Laura Scholz-Diaz** - The role of dark matter halos in shaping the evolution of massive galaxies
12:15 - 12:30	**Robert-Gabriel Pascalau** - Dissecting a Massive Quiescent Galaxy with JWST: Stellar Kinematics, AGN Feedback and Mass Assembly at z>4
12:30 - 12:45	**Martje Slob** - Beyond Ellipticals: stellar kinematics of high-redshift quiescent galaxies as a probe for quenching mechanisms
12:45 - 14:30	LUNCH BREAK
14:30 - 14:45	**Ryota Ikeda** - Formation of sub-structure in luminous SMGs (FOSSILS)
14:45 - 15:00	**Stefano Zibetti** - Enlightening the Formation of Massive Galaxies by resolving the Link Between Structure and Stellar Populations
15:00 - 15:15	**Crescenzo Tortora** - Probing mass assembly and feedback mechanisms by constraining dark matter content in massive galaxies

15:15 - 15:30	**Xiaoya Zhang** - Combining Deep Images with Spatially Resolved Spectra to Uncover the Assembly of Stellar Halo in Massive Galaxies
15:30 - 15:45	**Darko Donevski** - Reconstructing the Histories of Dust-Rich Quiescent Galaxies up to z ~ 3
15:45 - 16:15	COFFEE BREAK
Session	**The co-evolution between BH and host galaxies**
16:15 - 16:45	**Masafusa Onoue** - Co-evolution of massive galaxies and black holes in the early universe
16:45 - 17:00	**Francesco Shankar** - Self-Consistently building Galaxy-Supermassive Black Hole Co-Evolution via data-driven, self-consistent cosmological models
17:00 - 17:15	**Francesco Salvestrini** - The Rise of Massive Galaxies at the Epoch of Reionization
17:15 - 17:30	**Antonio Pensabene** - Witnessing the assembly of massive galaxies in a node of the Cosmic Web at z~3
17:30 - 18:00	**Physics Young Talent Prize Talk + Award**
20.30	CONFERENCE DINNER

	Friday 13 June
Session	**Quenching mechanisms**
09:30 - 09:45	**Lizhi Xie** - Quenching of massive galaxies from the high redshift to the local Universe
09:45 - 10:00	**Letizia Bugiani** - Star-formation quenching in massive galaxies at Cosmic Noon
10:00 - 10:15	**Sirio Belli** - Rapid Quenching of High-Redshift Galaxies by Neutral Gas Outflows
10:15-10:30	**Maya Skarbinski** - Insights into quenching and quenched galaxies at cosmic noon with JWST
10:30 - 10:45	**Wu, Po-Feng** - Ejective feedback as a quenching mechanism in the first billion years of the universe
10:45 - 11:15	COFFEE BREAK
11:15 - 11:30	**Marion Farcy** - The impact of AGN winds in quenching high-redshift massive galaxies
11:30 - 11:45	**Antonios Katsianis** - Rethinking Galaxy Evolution: A Multidisciplinary Perspective via a Simple Growth Model
11:45 - 12.00	FLASH TALK - 5 BEST POSTERS - Voting from Monday to Wednesday via online platform
12:00 - 13:30	PANEL DISCUSSION led and coordinated by some members of the SOC CONCLUSiONS

List of posters

Author	TITLE
Chiara Spiniello	The INvestigating Stellar Populations In RElics Project - aims, scientific questions and current overview
Michalina Maksymowicz-Maciata	The low-mass end slope of the stellar initial mass function and chemical composition of relic galaxies
Maximilian Zemsch	Tracing the Evolution of Simulated Relics
Allan Schnorr-Müller	Constraining the Formation of z ~ 0 Massive Compact Quiescent Galaxies via Multi-component Photometric Decomposition

Patrick Kamieneski	The role of internal vs. external quenching mechanisms at Cosmic Noon vs. Cosmic Dawn
Wang Lan	How mergers reshape morphology of massive galaxies?
Pralay Biswas	Revisiting Galaxy Evolution: A Study of Star-Forming Ellipticals with SDSS-MaNGA
Federica Mauro	Studying the radial profiles and mass assembly history of a sample of MAGPI galaxies at z~0.3
Damir Gasymov	Stellar counter-rotation in massive galaxies
Yu Lei	Dark matter distribution of present-day galaxies combining IFU and integrated HI spectrum
Giada Quadri	Testing the paradigms: the rapid assembly of massive disk galaxies in the early Universe
Rossella Ragusa	The Role of Preprocessing in shaping the Mass Assembly of BCGs and Clusters
Damien Cole Ragavan	Cosmic Chronicles: Tracing Stellar Mass Growth in Galaxy Clusters from ACT DR5
Aaron R. Rowntree	The Role of Large-Scale Environment in Shaping the Stellar Mass-Gas Metallicity Relation Across Time
Yongming Liang	Cosmic Himalayas: Hints of Massive Galaxy Formation in the Most Overdense Quasars at z~2
Christy Tremonti	The unusual mid-IR spectra of compact massive starbursts revealed by JWST
Daniela Barrientos Acevedo	Unveiling the Drivers of Kinematical Evolution in Massive Galaxies Through Synthetic Observations
Amir H. Khoram	Massive quenching driven by major mergers at cosmic noon
Roberto De Propris	The Ultraviolet excess in early type galaxies
Hin Leung	Outside-in starburst and quenching found in local massive quiescent galaxies consistent with the effects of recent mergers driving their evolution
Daniel Roberts	Self-Consistently Modelling Galaxy - Black Hole Coevolution in DECODE
Fabio Rosario Ditrani	The role of environment in galaxy evolution: insights from the COSMOS Wall
Anne E. Sansom	sMILES Stellar Population Models and Applications
Natalia Stylianou	Exploring the Connection between Galaxy Evolution and Dark Matter Halos with Deep Extragalactic Surveys
Avinash Chaturvedi	Impact of variable IMF on the black hole mass estimate of massive galaxies
Rongfu Liu	The 10 kpc collar of early-type galaxies – probing evolution by focusing on the inner stellar density profile
Takumi Kakimoto	Jekyll & Hyde: A proto-cluster of massive quiescent galaxies at z=3.7 confirmed by JWST/NIRSpec
Hengyue Zhang	Accurate supermassive black hole mass measurements from the local universe to high redshifts using ALMA molecular gas kinematics
Marcella Longhetti	StePS: tracing stellar populations in massive galaxies at intermediate redshifts
Francisco Arizo Borillo	Bridging Observations and Simulations: Probing the Most Massive Galaxies with J-PLUS and GAEA
Osman Mohammed Osman, Omima	Where the massive, dust-rich high-z galaxies would end up at z ~ 0?
Amaël Ellien	A multiscale view of the Intracluster light in the JWST/Euclid era

Gayathri Gururajan	Gas properties as a function of environment in the proto-supercluster Hyperion at z~2.45
Paolo Saracco	SHARP - A Next-Generation Spectrograph for Unveiling the Assembly of Massive Galaxies
Davide Bevacqua	Evidence of inflow-driven mass growth in a massive quiescent galaxy at z~3
Josephine Chishala	Testing the Merger – AGN - SFR Connection in 3.4 μm Selected Dynamically Close Galaxy Pairs
Hanjing Shi	Using stellar kinematics to study the co-evolution of black holes and their host galaxies.
Rajashree Bhuyan	Age Gradients of Post-Starburst Galaxies at Cosmic Noon Revealed by JWST
Romane Cologni	Mapping molecular gas in Super Spiral Galaxies
João Pedro Benedetti	Not so dead afterall! Residual star formation in early type galaxies: local galaxies and relics
Sivia Teresa Guida	Constraining the Evolution of the UV-Luminosity Function of Galaxies at z ~ 7 - 15 with JWST
Hao Su	Using Deep Learning Methods to detect Ultra-diffuse Galaxies from the Kilo-Degree Survey
Nathan Meagher	Echoes Along the Tuning Fork: Revisiting Hubble's Sequence Through Bulge Growth
Sultan Hadi Kusuma	Spatially Resolved of the Star-Forming Main Sequence in the JWST Fields

(ii) Summary of the scientific highlights of the meeting

The **Abstracts Booklet,** including the abstracts of both oral and poster contributions, can be retrieved from the following link
https://drive.google.com/file/d/1Qq4aHa1QrGugio6CbR7qcWrYE3YOZu-t/view

The aim of this international conference is to bring together observers and theorists to discuss the formation and cosmic evolution of the most massive galaxies in the Universe, focusing on their mass and luminous structure, stellar populations, and the environments in which they live. The most massive $M^*>10^{11}$ and oldest galaxies account for more than half of the total stellar mass in the local Universe. Their formation and evolution still represent an open contentious question in pres ent-day astrophysics and cosmology. Recent observations have revealed the presence of massive quiescent galaxies even in the first cosmic epochs (out to z>4), representing a challenge for galaxy formation models: it is unclear how they became so massive over such short timescales, how their stellar metallicity grew so fast to solar or supersolar values and, finally, what quenched these objects so quickly and efficiently.

The main aim of this symposium is twofold:

1. Review results from the latest observations of massive quiescent galaxies in the Universe, from high-z to z~0; then,
2. Critically analyze to what extent state-of-the-art theoretical models of galaxy formation and evolution can reproduce observations.

During the symposium the following major science topics strictly related to the formation and evolution of massive galaxies were discussed. The **first session** focused on the *Physical processes driving the early phases of formation of massive galaxies,* addressing how and when early massive quiescent galaxies formed, challenging current galaxy formation models, and insights from simulations like Magneticum, DAWN, and COLIBRE. The **second session** focused on the *Star Formation History and chemical enrichment and evolution in massive galaxies, e*xploring the stellar population properties, metallicity, age scaling relations, and chemical enrichment using data from surveys like J-PAS, CANDELS, LEGA-C, and JWST. The **third session** focused on *the Initial Stellar Mass Function (IMF) across Time and Galaxies,* discussing the variability of the stellar IMF, its implications for galaxy evolution models, and measurements in young stellar populations. The **fourth session** focused on the *Influence of Internal/External Physical Processes and*

Environment, investigating the role of the environment in massive galaxy formation, the accelerated growth of galaxies in protoclusters, and the environmental history of massive galaxies. The **fifth session** focused on *Compact Massive Galaxies,* focusing on the structural evolution of compact massive galaxies, "red and blue nuggets," and their properties as relic galaxies. The **sixth session** focused on the *Internal Structure, Kinematics, and Dynamics*, analyzing the dynamical structures, stellar kinematics, and internal orbital structures of massive galaxies to understand their mass assembly and formation pathways. The **seventh session** focused on the *Co-evolution between Black Holes and Host Galaxies***,** examining the co-evolution of massive galaxies and black holes in the early universe. Finally, the **eighth session** focused on *Quenching Mechanisms***,** discussing the processes that lead to the cessation of star formation in massive galaxies, including feedback from AGN and neutral gas outflows.

The symposium highlighted the transformative impact of JWST data, which continues to challenge and refine our understanding of how the Universe's most massive galaxies rapidly assembled their stellar mass, enriched chemically, and ceased star formation over cosmic time. These findings emphasize the complex interplay of internal processes (starbursts, AGN feedback), environmental factors (mergers, dense regions), and the nature of the stellar IMF in shaping these massive systems.

(iii) List of participants

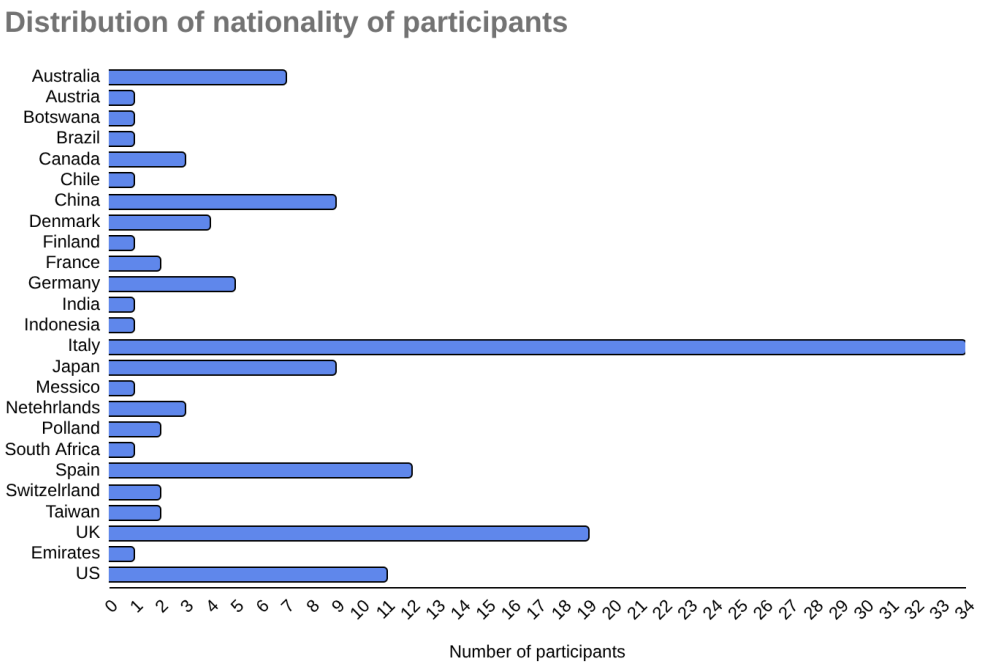
PARTICIPANT	Affiliation	Country
Ayan Acharyya	INAF Padova (Italy)	Italy
Marianna Annunziatella	CAB, CSIC-INTA (Spain)	Spain
Jacqueline Antwi-Danso	University of Toronto (Canada)	Canada
Francisco Arizo Borillo	Centro de Estudios de Física del Cosmos de Aragón (Spain)	Spain
Ryan Bagge	University of New South Wales (Australia)	Australia
William Baker	DARK, University of Copenhagen (Denmark)	Denmark
Amrita Banerjee	Swinburne University of Technology (CAS), Melbourne (Australia)	Australia
Daniela Barrientos Acevedo	Universidad Católica de Chile / CATA (Chile)	Chile
Sirio Belli	University of Bologna (Italy)	Italy
João Pedro Benedetti	Instituto de Astrofísica de Canárias (Spain)	Spain
Davide Bevacqua	DiSAT, Universitá degli Studi dell'Insubria (Italy)	Italy
Aliza Beverage	UC Berkeley (US)	USa
Rajashree Bhuyan	National Taiwan University, Taiwan	Taiwan
Pralay Biswas	National Centre for Radio Astrophysics (India)	India
Sarah Bodansky	UMass Amherst (US)	US
Letizia Bugiani	University of Bologna (Italy)	Italy
Fernando Buitrago	University of Valladolid (Spain) and Institute of Astrophysics and Space Sciences (Portugal)	Spain
Valerio Busillo	INAF-OAC Naples (Italy)	Italy
Carlo Cannarozzo	New York University Abu Dhabi (NYUAD) - Abu Dhabi, United Arab Emirates (UAE)	United Arab Emirates
Adam Carnall	Edinburgh University (UK)	UK

Avinash Chaturvedi	Leibniz Institute for Astrophysics, Potsdam (Germany)	Germany
Chloe Cheng	Leiden Observatory (NL)	Netherlands
Josephine Chishala	Botswana International University of Science and Technology (Biust), Botswana	Botswana
Romane Cologni	Paris Observatory (LUX) and IAP (FRANCE)	France
Luca Costantin	Centro de Astrobiología (Spain)	Spain
Scott Croom	University of Sydney (Aus)	Australia
Darren Croton	Swinburne University of Technology (Aus)	Australia
Chantale Damas	CUNY/Queensborough Community College (US)	US
Ivana Damjanov	Saint Mary's University (Canada)	Canada
Gabriella De Lucia	INAF- Trieste (Italy)	Italy
Roberto De Propris	FINCA (Finland)	Finland
Enrico Di Teodoro	Università di Firenze (Italy)	Italy
Luis A. Diaz-Garcia	Instituto de Astrofisica de Andalucia (IAA-CSIC, Spain)	Spain
Fabio Rosario Ditrani	University of Milan-Bicocca (Italy)	Italy
Darko Donevski	Astrophysics Division, National Centre for Nuclear Research, Warsaw (Poland)	Poland
Elham Eftekhari	Instituto de Astrofisica de Canarias (Spain)	Spain
Amaël Ellien	Universidad Pedagógica del Estado Sinaloa (México)	Mexico
Marion Farcy	EPFL (Switzerland)	Switzerland
Anna Ferre-Mateu	Instituto de Astrofisica de Canarias (Spain)	Spain
Fabio Fontanot	INAF - OATs - IFPU (Italy)	Italy
Marta Galbiati	University of Milano-Bicocca (Italy)	Italy
Anna Rita Gallazzi	INAF-Arcetri Astrophysical Observatory (Italy)	Italy
Adriana Gargiulo	INAF - Osservatorio Astronomico di Brera (Italy)	Italy
Damir Gasymov	ARI, ZAH, University of Heidelberg (Germany)	Germany
Karl Glazebrook	Swinburne University of Technology (Aus)	Australia
Ángel Chandro Gómez	ICRAR/UWA (Aus)	Australia
Rashmi Gottumukkala	Cosmic Dawn Centre, Niels Bohr Institute, Copenhagen (Denmark)	Denmark
Kieran Graham	University of Portsmouth (UK)	UK
Sivia Teresa Guida	Universita' degli studi di Napoli Federico II (Italy)	Italy
Gayathri Gururajan	SISSA (Italy)	Italy
Eduardo Albuquerque Hartmann	Instituto de Astrofisica de Canarias (Spain)	Spain
Novan Saputra Haryana	Tohoku University (Japan)	Japan
Anne Hutter	Cosmic Dawn Center, Copenaghen (DN)	Denmark
Ryota Ikeda	SOKENDAI/NAOJ (Japan)	Japan
Kei Ito	Cosmic Dawn Center, Technical University of Denmark	Denmark

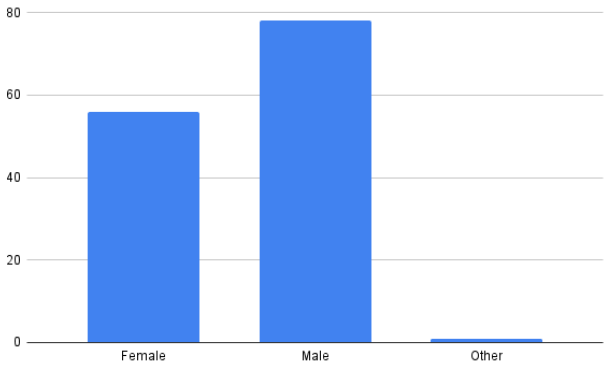
	(Denmark)	
Takumi Kakimoto	The Graduate University for Advanced Studies (Japan)	Japan
Boris Sindhu Kalita	Kavli-IAA (China) & Kavli-IPMU (Japan)	Japan
Patrick Kamieneski	Arizona State University (US)	US
Antonios Katsianis	Sun-Yat Sen University (China)	China
Amir H. Khoram	University of Bologna (Italy)	Italy
Lucas Kimmig	University Observatory, LMU Munich (Germany)	Germany
Chiaki Kobayashi	Centre for Astrophysics Research (CAR), University of Hertfordshire (UK)	UK
Tadayuki Kodama	Tohoku University (JP)	Japan
Davor Krajnović	Leibniz-Instutute for Astrophysic Potsdam (AIP) (Germany)	Germany
Hadi Sultan Kusuma	Institut Teknologi Bandung (Indonesia)	Indonesia
Francesco La Barbera	INAF-OAC Naples (Italy)	Italy
Wang Lan	National Astronomical Observatories, CAS (China)	China
Yu Lei	Shanghai Astronomical Observatory (China)	China
Hin Leung	University of Edinburgh(UK)	UK
Yongming Liang	National Astronomical Observatory of Japan (Japan)	Japan
Seunghwan Lim	University of Cambridge (UK)	UK
Jamie Lin	Tuft University (US)	US
Krzysztof Lisiecki	National Centre for Nuclear Research (Poland)	Poland
Rongfu Liu	Shanghai Jiao Tong University (China)	China
Marcella Longhetti	INAF - Osservatorio Astronomico di Brera (Italy)	Italy
Pengjun Lu	Department of Astronomy, Tsinghua University (China)	China
Shengdong Lu	Institute for Computational Cosmology, Durham University (UK)	UK
Michalina Maksymowicz-Maciata	University of Bristol (UK)	UK
Claudia Maraston	University of Portsmouth (UK)	UK
Danilo Marchesini	Tufts University (US)	US
Ignacio Martin Navarro	Instituto de Astrofísica de Canarias (Spain)	Spain
Daniele Mattolini	Trento University/INAF-OAA (Italy)	Italy
Federica Mauro	University of Vienna (Austria)	Austria
Ian McConachie	University of Wisconsin–Madison (USA)	US
Nathan Meagher	Observatoire de Paris (France)	France
Amata Mercurio	Universita' degli studi di Fisciano (Italy)	Italy
Emiliano Merlin	INAF (Italy)	Italy
Adam Muzzin	York University (Canada)	Canada
Themiya Nanayakkara	Swinburne University of Technology (Aus)	Australia
Nicola R. Napolitano	Universita' degli studi di Napoli Federico II (Italy)	Italy

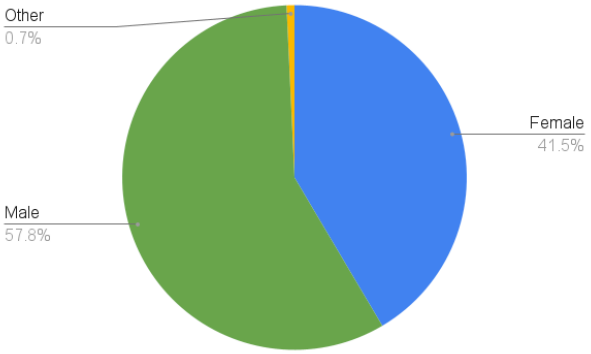
Rafael Navarro-Carrera	Kapteyn Astronomical Institute (NL)	Netherlands
Andrea Negri	Universidad de Sevilla (Spain)	Spain
Andrew Newman	Carnegie Observatories (US)	US
Osman Mohammed Osman, Omima	INAF-OATS (Italy)	Italy
Masafusa Onoue	Waseda university (Japan)	Japan
Maurizio Paolillo	Universita' degli studi di Napoli Federico II (Italy)	Italy
Robert-Gabriel Pascalau	KICC, University of Cambridge (UK)	UK
Anna Pasquali	Universität Heidelberg (Germany)	Germany
Antonio Pensabene	University of Milano-Bicocca (Italy)	Italy
Wu, Po-Feng	National Taiwan University (Taiwan)	Taiwan
Giada Quadri	University of Milano-Bicocca (Italy)	Italy
Damien Cole Ragavan	University of the Witwatersrand (South Africa)	South Africa
Rossella Ragusa	INAF- OACN (Italy)	Italy
Rhea-SIlvia Remus	University Observatory Munich, LMU (Germany)	Germany
Daniel Roberts	University of Southampton (UK)	UK
Aaron R. Rowntree	University of Hull (UK)	UK
Francesco Salvestrini	INAF - Astronomical Observatory of Trieste (Italy)	Italy
Anne E. Sansom	University of Central Lancashire (UK)	UK
Paolo Saracco	INAF - Osservatorio Astronomico di Brera (Italy)	Italy
Allan Schnorr-Müller	Universidade Federal do Rio Grande do Sul, UFRGS (Brazil)	Brazil
Laura Scholz-Diaz	INAF-Osservatorio Astrofisico di Arcetri (Italy)	Italy
Francesco Shankar	University of Southamton (UK)	UK
Hanjing Shi	Shanghai Astronomical Observatory, CAS	China
Zhou Shuang	INAF - Osservatorio Astronomico di Brera (Italy)	Italy
Maya Skarbinski	Johns Hopkins University (US)	US
Martje Slob	Leiden Observatory (NL)	Netherlands
Chiara Spiniello	University of Oxford (UK)	UK
Struan Stevenson	University of Edinburgh (UK)	UK
Natalia Stylianou	University of Oxford, (UK)	UK
Hao Su	Universita' degli studi di Napoli Federico II (Italy)	Italy
Kosuke Takahashi	Tohoku University (Japan)	Japan
Crescenzo Tortora	INAF - OACN (Italy)	Italy
Christy Tremonti	University of Wisconsin-Madison (US)	US
Hideki Umehata	Nagoya University (Japan)	Japan
Alexandre Vazdekis	Instituto de Astrofísica de Canarias (Spain)	Spain
Jorick Vink	Armagh Observatory and Planetarium (UK)	UK

Kate Whitaker	University of Massachusetts (US)	US
Mengyuan Xiao	University of Geneva (Switzerland)	Switzerland
Lizhi Xie	Tianjin Normal University (China)	China
Daria Zakharovaa	INAF Trieste (Italy)	Italy
Maximilian Zemsch	University of Oxford (UK)	UK
Hengyue Zhang	University of Oxford (UK)	UK
Xiaoya Zhang	Department of Astronomy, Tsinghua University, Beijing (China)	China
Ling Zhu	Shanghai Astronomical Observatory (China)	China
Stefano Zibetti	INAF-Arcetri Astrophysical Observatory (Italy)	Italy



Distribution of participants by gender





(iv) List of recipients of IAU grants, stating the amount received, country and gender

First Name	Family Name	Gender	Affiliation	Country	Grant EUR
Francesco	Shankar	M	University of Southampton	UK	800
Martje	Slob	F	Leiden Observatory	Netherlands	450
Po-Feng	Wu	M	National Taiwan University, Taiwan	Taiwan	300
Rashmi	Gottumukkala	F	Cosmic Dawn Center	Denmark	1000
Chloe	Cheng	F	Leiden Observatory	Netehrlands	450
Angel	Chandro Gomez	M	ICRAR University of western Australia	Australia	1500
Ryota	Ikeda	M	Sokendai - NAOJ	Japan	1500
Sarah	Bodansky	F	University of Massachusetts Amherst	USA	1300
Maya	Skarbinski	F	Johns Hopkins University (USA)	USA	1500
Jamie	Lin	F	Tufts University	USA	1500
Davide	Bevacqua	M	Tufts University	USA	600
Marianna	Annunziatella	F	Centro de Astrobiologia	Spain	300
Lu	Shengdong	M	Institute for Computational Cosmology, Durham University	UK	800
William	Baker	X	DARK, University of Copenhagen	Denmark	500
Krzysztof	Lisiecki	M	National Center of Nuclear Research	Polish	300
Novan	Haryana	M	Astronomical Institute, Tohoku University	Japan	2500
Michalina	Maksymowicz-Maciata	F	University of Bristol	UK	300
Pralay	Biswas	M	National Center for Astrophysics (NCRA)	India	800
Maximilian	Zemsch	M	University of Oxford	UK	300
Damien	Ragavan	M	University of Witwatersrand	South Africa	2000
Rossella	Ragusa	F	INAF - Osservatorio di Capodimonte	Italy	300
Sultan	Kusuma	M	Institut Teknologi Bandung	Indonesia	1000

Number of recipients 22: Female 9, Male 12, Other 1 **Total 20,000 EUR**

(v) An Executive Summary of the Meeting

The IAU Symposium 396 on Massive Galaxies across the Universe, was held in Naples, Italy, from June 9-13, 2025. The symposium focused on the formation and evolution of massive galaxies, which are the most massive ($M*>10^{11}$Msun) and oldest galaxies in the local universe. A key goal of the meeting was to review the latest observational data on massive quiescent galaxies from high-redshift to the present day and to evaluate how well current theoretical models of galaxy formation can reproduce these observations.
The symposium took place at a "strategic time" to facilitate the planning of proposals for key observations at major facilities. The conference was co-coordinated by Division J (Galaxies and Cosmology).

The conference attracted a lot of international interest as confirmed by the high number (25) of represented countries. We received more than 240 abstract submissions by the registration deadline (pressure factor >3 for talks, and >1.6 for capacity of the venue). The SOC therefore had the hard work of selecting the best abstracts for oral and poster contributions (invited and solicited talks had already been selected with the help of the SOC before the submission opened). Each abstract was graded by all the SOC members, the median grade was computed and a ranking was obtained. We then followed the ranking to assign the talkss and poster presentations while a waiting list was created and processed according to the cancellations. Posters were located close to the auditorium and next to the coffee breaks.

Venue - The conference was held in downtown Naples at the historic SS. Marcellino and Festo Convent, a complex of two 7th-century monasteries. The venue, which is now a modern conference center part of the University of Naples Federico II, also houses the Museum of Paleontology. The conference Center is conceived to host meetings and it is equipped with modern audio-visual facilities. The auditorium accommodates up to 155 persons providing room for poster exposition.

The conference schedule includes:

- Sunday, June 8th from 6.30 pm to 8.30 pm takes place a **Massive Welcome Cocktail** (included in the fee) for all the participants at the conference venue. Registration for the conference is also possible during the cocktail and continues on the morning of the 9th.
- Monday, June 9th: Focuses on the formation of massive galaxies at high redshift, including topics like early massive quiescent galaxies, the origins of massive galaxies, and insights from JWST observations.
- Tuesday, June 10th: Discusses star formation histories and chemical evolution of massive galaxies, stellar population properties, and the Initial Mass Function (IMF) across time and galaxies.
- Wednesday, June 11th: Explores the influence of internal and external physical processes and environment on the evolution of massive galaxies, and includes a session on compact massive galaxies, followed by a free afternoon.
- Thursday, June 12th: Covers the internal structure, kinematics, and dynamics of massive galaxies, as well as the co-evolution between black holes and host galaxies. At the end of the afternoon session, the **Physics Young Talent Prize award** ceremony takes place, preceded by a speech by the winner, Mr. **Dhairya Jaswani.** A conference dinner is scheduled for the evening.
- Friday, June 13th: The final day is dedicated to quenching mechanisms in massive galaxies, followed by flash talks for the 5 best posters, a panel discussion, and concluding remarks.

Each day features various talks, coffee breaks, and a lunch break.

Social Events - Besides the Welcome Cocktail

- A **Massive Walking Tour** in Naples historical center, UNESCO world heritage was organized on 11 June 2025 (2.30 pm). A Guided walking tour (extra fee) to visit the main points of interest, squares, monuments, and churches. Entrance to Naples Underground and the Majolica Cloister of Santa Chiara included in the price.
- A **Massive Social dinner** (extra fee) was organized on 12 June 2025 at the Ristorante Calasole.A shuttle service was available to and from the restaurant with a meeting at 19:30 from Piazza Museo 19.

Outreach Events at INAF and Univ. Federico II (in italian)

- *Gli errori degli astronomi - Storie di abbagli e meraviglie nella caccia agli esopianeti* (Astronomers' Mistakes - Stories of Blunders and Wonders in the Hunt for Exoplanets) - Public conference, speaker Prof. Giovanni Covone, on Wednesday 11 June, at 18:00, SS Marcellino e Festo (while seats last).
- *Segnali dallo Spazio* (Signals from Space) – A science fiction theater performance, Friday, June 13, at 9:00 PM at INAF - Osservatorio Astronomico di Capodimonte (while seats last).