

SIMBA Collaboration Meeting

Report of Contributions

Contribution ID: 1

Type: **not specified**

Welcome & Simba status report

Monday, May 1, 2023 10:00 AM (20 minutes)

Presenter: DAVÉ, Romeel (University of Edinburgh)

Session Classification: Morning Session

Contribution ID: 2

Type: **not specified**

Powderday: Usage and applications

Monday, May 1, 2023 10:20 AM (25 minutes)

Presenter: NARAYANAN, Desika (University of Florida)

Session Classification: Morning Session

Contribution ID: 3

Type: **not specified**

The interplay of dual black hole accretion and feedback modes in SIMBA

Monday, May 1, 2023 11:30 AM (25 minutes)

Presenter: ANGLES-ALCAZAR, Daniel (University of Connecticut)

Session Classification: Morning Session

Contribution ID: 4

Type: **not specified**

Probing the impact of AGN feedback on gas distribution with SIMBA and IllustrisTNG

Monday, May 1, 2023 4:10 PM (25 minutes)

Presenter: YANG, Tianyi (University of Edinburgh)

Session Classification: Afternoon Session

Contribution ID: 5

Type: **not specified**

Characterizing AGN Feedback Processes at $z \sim 1$ with SIMBA

Monday, May 1, 2023 3:45 PM (25 minutes)

Presenter: GRAYSON, Skylar (Arizona State University)

Session Classification: Afternoon Session

Contribution ID: 6

Type: **not specified**

Simulating Galaxy Groups and their Massive Central Galaxies

Monday, May 1, 2023 2:00 PM (25 minutes)

Presenter: BABUL, Arif (University of Victoria)

Session Classification: Afternoon Session

Contribution ID: 7

Type: **not specified**

Group X-ray scaling relations and mass bias in SIMBA

Monday, May 1, 2023 2:25 PM (25 minutes)

Presenter: JENNINGS, Fred (University of Edinburgh)

Session Classification: Afternoon Session

Contribution ID: 8

Type: **not specified**

**ISM evolution in the SIMBA cosmological
simulation: galaxies in cluster environment
REMOTE**

Monday, May 1, 2023 2:50 PM (25 minutes)

Presenter: LORENZON, Guiliano (National Center For Nuclear Research (NCBJ))

Session Classification: Afternoon Session

Contribution ID: 9

Type: **not specified**

The impact of feedback on haloes and large-scale structure

Monday, May 1, 2023 12:20 PM (25 minutes)

Presenter: SORINI, Daniele (Durham University)

Session Classification: Morning Session

Contribution ID: **10**

Type: **not specified**

Exploring the link between feedback and galaxy star formation history

Monday, May 1, 2023 11:55 AM (25 minutes)

Presenter: IYER, Kartheik (Columbia University)

Session Classification: Morning Session

Contribution ID: 11

Type: **not specified**

Revealing the subtle differences in the stellar-to-halo mass relationship between different models through subhalo tracking

Wednesday, May 3, 2023 10:20 AM (25 minutes)

Presenter: GABRIELPILLAI, Austen (NASA Goddard Space Flight Center / Catholic University of America)

Session Classification: Morning Session

Contribution ID: 12

Type: **not specified**

CAMELS

Tuesday, May 2, 2023 9:30 AM (25 minutes)

Presenter: VILLAESCUSA-NAVARRO, Paco (Flatiron Institute)

Session Classification: Morning Session

Contribution ID: 13

Type: **not specified**

**Modelling the Cosmology and Astrophysics
Dependent Galaxy-Halo Relationship using
Normalizing Flows and the CAMEL Simulations
REMOTE**

Tuesday, May 2, 2023 9:55 AM (25 minutes)

Presenter: LOVELL, Chris (University of Portsmouth)

Session Classification: Morning Session

Contribution ID: 14

Type: **not specified**

Using CNN to Predict Galaxy Properties

Tuesday, May 2, 2023 10:20 AM (25 minutes)

Presenter: KIM, Jino (University of Toronto)

Session Classification: Morning Session

Contribution ID: 15

Type: **not specified**

Cosmic Sands: The Origin of High-z Dusty Galaxies

Tuesday, May 2, 2023 11:30 AM (25 minutes)

Presenter: LOWER, Sidney (University of Florida)

Session Classification: Morning Session

Contribution ID: 16

Type: **not specified**

The rapid evolution of galaxies' ISM in the metric of cosmic web **REMOTE******

Tuesday, May 2, 2023 11:55 AM (25 minutes)

Presenter: DONEVSKI, Darko (NCBJ / SISSA)

Session Classification: Morning Session

Contribution ID: 17

Type: **not specified**

Improved Dust and H2 Modelling in SIMBA **** REMOTE ****

Tuesday, May 2, 2023 12:20 PM (25 minutes)

Presenter: JONES, Ewan (University of Edinburgh)

Session Classification: Morning Session

Contribution ID: **18**

Type: **not specified**

Zoomed-in simulations with SIMBA

Tuesday, May 2, 2023 2:00 PM (25 minutes)

Presenter: CUI, Weiguang (IfA, University of Edinburgh)

Session Classification: Afternoon Session

Contribution ID: 19

Type: **not specified**

Charting the redshift evolution of metallicity indicators using SIMBA

Tuesday, May 2, 2023 2:25 PM (25 minutes)

Presenter: GARG, Prerak (University of Florida)

Session Classification: Afternoon Session

Contribution ID: 20

Type: **not specified**

SIMBA predicts exotic H₂ gas-to-dust ratios in quiescent galaxies

Tuesday, May 2, 2023 2:50 PM (25 minutes)

Presenter: WHITAKER, Kate (UMass Amherst)

Session Classification: Afternoon Session

Contribution ID: 21

Type: **not specified**

Cosmic Evolution of Atomic and Molecular Gas within Dark Matter Halos

Tuesday, May 2, 2023 3:45 PM (25 minutes)

Presenters: LIU, Kexin (Shanghai Astronomical Observatory, Chinese Academy and Sciences); MA, Wenlin (Shanghai Astronomical Observatory, Chinese Academy and Sciences)

Session Classification: Afternoon Session

Contribution ID: 22

Type: **not specified**

The History of Dust-obscured Star Formation

Tuesday, May 2, 2023 4:10 PM (25 minutes)

Presenter: ZIMMERMAN, Dhruv (University of Florida)

Session Classification: Afternoon Session

Contribution ID: 23

Type: **not specified**

The Physically Evolved Wind Model

Wednesday, May 3, 2023 9:30 AM (25 minutes)

Presenter: KATZ, Neal (University of Massachusetts)

Session Classification: Morning Session

Contribution ID: 24

Type: **not specified**

Absorption lines of wind particles in simulations

Wednesday, May 3, 2023 9:55 AM (25 minutes)

Presenter: YANG, Lisiyuan (UMass Amherst)

Session Classification: Morning Session

Contribution ID: 25

Type: **not specified**

AGN feedback effects on the low redshift Lyman-alpha forest

Monday, May 1, 2023 4:35 PM (25 minutes)

Presenter: TILLMAN, Megan (Rutgers University)

Session Classification: Afternoon Session

Contribution ID: 26

Type: **not specified**

Radio galaxies in Simba and comparisons to MIGHTEE **REMOTE**

Wednesday, May 3, 2023 11:30 AM (25 minutes)

Presenter: THOMAS, Nicole (Durham University)

Session Classification: Morning Session

Contribution ID: 27

Type: **not specified**

Physical properties of JWST galaxies via machine learning **REMOTE******

Wednesday, May 3, 2023 11:55 AM (25 minutes)

Presenter: LI, Qingyang (Shanghai Jiao Tong University)

Session Classification: Morning Session

Contribution ID: 28

Type: **not specified**

The evolution of early quenched galaxies in Simba

****REMOTE****

Wednesday, May 3, 2023 12:20 PM (25 minutes)

Presenter: SZPILA, Jakub (University of Edinburgh)

Session Classification: Morning Session

Contribution ID: 29

Type: **not specified**

Introduction to Simba-C: an updated chemical enrichment model

Wednesday, May 3, 2023 2:00 PM (25 minutes)

Presenter: HOUGH, Renier (North-West University Potchefstroom Campus, South Africa)

Session Classification: Afternoon Session

Contribution ID: **30**

Type: **not specified**

Kiara

Wednesday, May 3, 2023 2:25 PM (25 minutes)

Presenter: DAVÉ, Romeel (University of Edinburgh)

Session Classification: Afternoon Session

Contribution ID: 31

Type: **not specified**

Zoom Simulations with SWIFT **REMOTE**

Wednesday, May 3, 2023 2:50 PM (25 minutes)

Presenter: ROPER, Will (University of Sussex)

Session Classification: Afternoon Session

Contribution ID: 33

Type: **not specified**

Analysis tools presentations and group discussion: CAESAR, Powderday, swiftsimio, MOXHA, PyMSZ, profiles + pygad, SIMBA/Rockstar

Presenters: SORINI, Daniele (Durham University); NARAYANAN, Desika (University of Florida); JENNINGS, Fred (University of Edinburgh); BORROW, Joshua (MIT); LO, Kevin (University of Edinburgh); DAVE, Romeel (University of Edinburgh); CUI, Weiguang (University of Edinburgh)

Session Classification: Analysis tools presentations and group discussion

Contribution ID: **34**

Type: **not specified**

CAESAR

Presenters: NARAYANAN, Desika; DAVE, Romeel

Session Classification: Analysis tools presentations and group discussion

Contribution ID: 35

Type: **not specified**

Powderday

Presenter: NARAYANAN, Desika

Session Classification: Analysis tools presentations and group discussion

Contribution ID: **36**

Type: **not specified**

swiftsimio

Presenter: BORROW, Josh

Session Classification: Analysis tools presentations and group discussion

Contribution ID: 37

Type: **not specified**

MOXHA

Presenter: JENNINGS, Fred

Session Classification: Analysis tools presentations and group discussion

Contribution ID: **38**

Type: **not specified**

PyMSZ

Presenter: CUI, Weiguang

Session Classification: Analysis tools presentations and group discussion

Contribution ID: 39

Type: **not specified**

profiles, pygad

Presenter: SORINI, Daniele

Session Classification: Analysis tools presentations and group discussion

Contribution ID: 40

Type: **not specified**

SIMBA/Rockstar

Presenter: LO, Kevin

Session Classification: Analysis tools presentations and group discussion

Contribution ID: 41

Type: **not specified**

Ongoing and future projects discussion – Romeel Davé et al.

Wednesday, May 3, 2023 3:45 PM (15 minutes)

Session Classification: Afternoon Session