

# Galaxy-IGM workshop 2022

Monday, Aug 8 – Friday, Aug 12

Contributions	talk + Q&A
<b>Review</b>	40 min + 10 min
<b>Contributed talk</b>	13 min + 7 min
<b>Group presentation</b>	8 min + 7 min

## Day 1 – Monday, Aug 8

Session 1 9:20 – 11:10

Chair: TBA

- 9:20 – 9:30 [Hidenobu Yajima \(University of Tsukuba\)](#) Introductory remarks  
9:30 – 10:20 [Chiaki Gen \(NAOJ\)](#) The formation of the first stars and galaxies  
10:20 – 10:40 [Xhemollari Oerd \(University of Tsukuba\)](#) The Formation of Pop III Star Clusters under UV radiation  
10:40 – 11:00 [Nakazato Yurina \(University of Tokyo\)](#) 遠方銀河における [OIII] 輝線比  
11:00 – 11:10 Break

Session 2 11:10 – 13:40

Chair: TBA

- 11:10 – 11:30 [Kaneda Yuka \(University of Tsukuba\)](#) ダークマターハローの Scaling Relation  
11:30 – 11:50 [Nishigaki Moka \(SOKENDAI\)](#) 近傍の極金属欠乏銀河の探索とその物理起源  
11:50 – 12:10 [Xu Yi \(University of Tokyo\)](#) Spatially Resolved Early Star Formation in Local Extremely Metal-poor Galaxies  
12:10 – 13:40 Lunch

Session 3 13:40 – 15:40

Chair: TBA

- 13:40 – 14:00 [Isobe Yuki \(The University of Tokyo, ICRR\)](#) 近傍観測と遠方シミュレーションが示唆する遠方初期銀河の分散運動優位性  
14:00 – 14:20 [Watanabe Kuria \(SOKENDAI\)](#) 高い鉄酸素比を持つ極金属欠乏銀河の元素組成比とその起源  
14:20 – 15:10 [Egami Eiichi \(University of Arizona\)](#) James Webb Space Telescope (JWST): Dawn of a New Era in Astronomy  
15:10 – 15:30 [Harikane Yuichi \(The University of Tokyo, ICRR\)](#) Statistical Properties of  $\sim 4,000,000$  Galaxies at  $z \sim 2 - 7$  and Its Implication for Star Formation at  $z > 10$   
15:30 – 15:40 Break

Session 4 15:40 – 17:40

Chair: TBA

- 15:40 – 16:00 [Umeda Hiroya \(University of Tokyo\)](#) すばる/HSC で探る  $z \sim 6-7$  での Ly  $\alpha$  光度関数と等価幅分布  
16:00 – 16:20 [Kikuta Satoshi \(NAOJ\)](#) PFS-SSP に向けた high- $z$  LAE サイエンス検討

16:20 – 16:40 [Inoue Akio \(Waseda University\)](#) Possible Rotation in a  $z=9.1$  Galaxy  
 16:40 – 17:00 [Sugawara Yuma \(Waseda University\)](#) Tokult: 重力レンズ効果を受けた銀河の回転運動解析コード  
 17:00 – 17:10 Break  
 17:10 – 17:40 Discussion

## Day 2 – Tuesday, Aug 9

### Session 5 9:30 – 10:40

Chair: TBA

9:30 – 9:50 [Ren Yi \(Waseda University\)](#) Updated measurements of [OIII] 88  $\mu$  m, [CII] 158  $\mu$  m, and dust continuum emission from a  $z=7.2$  galaxy  
 9:50 – 10:10 [Ono Yoshiaki \(University of Tokyo\)](#) ALMA Observations for CO Emission from Luminous Lyman-break Galaxies at  $z=6.0293$ - $6.2037$   
 10:10 – 10:30 [Tsujiata Akiyoshi \(University of Tokyo\)](#) ALMA Lensing Cluster Survey: Nature of a lensed H-dropout galaxy at  $z = 3.65$   
 10:30 – 10:40 Break

### Session 6 10:40 – 14:00

Chair: TBA

10:40 – 11:30 [Kana Moriwaki \(University of Tokyo\)](#) IGM at high redshifts probed by 21cm line  
 11:30 – 11:50 [Takumi Itoh \(Kumamoto University\)](#) Foreground Removal with Gaussian Process Regression for observing Epoch of Reionization  
 11:50 – 12:10 [Imoto Seiya \(Nagoya University\)](#) 21cm 線シグナルから探る初代星質量  
 12:10 – 12:30 [Akiba Takeshi \(University of Tsukuba\)](#) 原始銀河団領域の星形成活動と 21cm シグナルの関係  
 12:30 – 14:00 Lunch

### Session 7 14:00 – 15:40

Chair: TBA

14:00 – 14:50 [Prochaska Xavier J. \(University of California, Santa Cruz / Kavli IPMU\)](#) Resolving the Cosmic Web with Fast Radio Bursts  
 14:50 – 15:10 [Liang Yongming \(SOKENDAI\)](#) Field Variation in LAE-IGM HI Correlation at  $z \sim 2$  Mapped by Subaru/HSC  
 15:10 – 15:30 [Sun Dongsheng \(University of Tokyo\)](#) Cosmological-Scale HI Distribution Around Galaxies and AGN Probed with Massive Spectroscopic Data  
 15:30 – 15:40 Break

### Session 8 15:40 – 17:40

Chair: TBA

15:40 – 16:00 [Nakajima Koichiro \(Nagoya University\)](#) Lyman  $\alpha$  forest の 3 次元分布による宇宙大規模構造の測定  
 16:00 – 16:20 [Kakiichi Koki \(University of California, Santa Barbara\)](#) Narrow-band IGM Tomography with Subaru/HSC across Cosmic Time  
 16:20 – 16:40 [Kashino Daichi \(Nagoya University\)](#) The EIGER project  
 16:40 – 17:00 [Matsumoto Akinori \(The University of Tokyo, ICRR\)](#) すばる望遠鏡の原始 He 量測定で検証する宇宙論モデルと反レプトン存在比  
 17:00 – 17:10 Break

17:10 – 17:40 Discussion

## Day 3 – Wednesday, Aug 10

### Session 9 9:30 – 11:10

Chair: TBA

9:30 – 10:20 [Ohsuga Ken](#) (University of Tsukuba) ブラックホール降着円盤およびガス噴出流の理論；これまでの進展と今後の課題

10:20 – 10:40 [Li Wenxiu](#) (Peking University) Massive Black Hole Seeds of  $z>6$  Luminous Quasars in the JWST Era

10:40 – 11:00 [Hu Haojie](#) (Peking University) Long-term evolutions of supercritical accretion with outflows: a subgrid feedback model to grow overmassive SMBHs

11:00 – 11:10 Break

### Session 10 11:10 – 13:20

Chair: TBA

11:10 – 11:30 [Mushano Takuya](#) (University of Tsukuba) 超臨界ブラックホール降着流におけるライマンアルファ輝線の輻射力の計算

11:30 – 11:50 [Ogata Erika](#) (University of Tsukuba) Dusty-gas 中を浮遊する中質量ブラックホールの降着成長過程: ダストの昇華と非等方輻射の影響

11:50 – 13:20 Lunch

### Session 11 13:20 – 15:00

Chair: TBA

13:20 – 14:10 [Kohei Ichikawa](#) (Tohoku University) Review on AGN observations

14:10 – 14:30 [Tang Shenli](#) (University of Tokyo) Correlations between type 1 quasar luminosity and host galaxy asymmetry

14:30 – 14:50 [Zhang Yechi](#) (The University of Tokyo, ICRR) Black Hole - Galaxy Coevolution at Cosmic Noon Probed by Faint HETDEX AGN

14:50 – 15:00 Break

### Session 12 15:00 – 17:30

Chair: TBA

15:00 – 15:20 [Hatano Shun](#) (SOKENDAI) 可視光輝線と光電離モデルで探る極金属欠乏銀河の隠れた非熱的放射源の正体

15:20 – 15:40 [Ezaki Tetsuya](#) (Waseda University) 多波長測光カタログによる活動銀河核の平均スペクトルエネルギー分布

15:40 – 16:00 [Kitagawa Shuya](#) (Waseda University) 銀河のスペクトルエネルギー分布モデルフィットにおける遠赤外線データの重要性

16:00 – 16:20 [Yamamoto Suguru](#) (University of Tsukuba) 近傍星形成銀河における分子ガスの分布形態に関する定量的・統計的解析

16:20 – 16:40 [Ando Makoto](#) (University of Tokyo) Detection of anisotropic satellite quenching in galaxy clusters up to  $z \sim 1$

16:40 – 16:50 Break

16:50 – 17:30 Discussion

## Day 4 – Thursday, Aug 11

Session 13    9:30 – 17:00

Chair:

9:30 – 17:00 Group work

## Day 5 – Friday, Aug 12

Session 14    9:30 – 12:30

Chair:

9:30 – 12:30 Group work

Session 15    12:30 – 14:30

Chair: TBA

12:30 – 14:00 Group work presentations

14:00 – 14:20 Break

14:20 – 14:30 [Hidenobu Yajima \(University of Tsukuba\)](#) 表彰