

# *The high-redshift Universe, and the role of galaxies and AGN to cosmic reionization*

Aula della Specola, Via Zamboni 33

## **Monday, October 26<sup>th</sup>, 2015**

13:50: Welcome

14-15: **Roberto Gilli (INAF-Osservatorio Astronomico di Bologna)**

- *A panchromatic view of high-redshift AGN*
- *Physical properties of the nucleus and of the host*

15-16: **Francesco Calura (INAF-Osservatorio Astronomico di Bologna)**

- *Dust growth at high redshift*

16-18: **Eros Vanzella (INAF-Osservatorio Astronomico di Bologna)**

- *Cosmic reionization: how was the IGM reionized?*
- *Probes of cosmic reionization (and ionization)*
- *Selection techniques of high-redshift galaxies*
- *Redshift evolution of the UV luminosity function of galaxies*

## **Tuesday, October 27<sup>th</sup>**

10-12, 15-16: **Marta Volonteri (Institut Astrophysique de Paris)**

- *Seed black holes and cosmological structure formation*
- *Black hole seed models. How do black holes grow to become super-massive?*
- *Feeding BHs at high redshift: merger-driven accretion, cosmic gas and local instabilities*

16-17: **Eros Vanzella**

- *Is all the cosmic reionization made by galaxies?*
- *Issues on the escape fraction*

## **Wednesday, October 28<sup>th</sup>**

14-16: **Roberto Gilli**

- *Selection techniques of high-redshift AGN*
- *The census of early SMBHs: what we know and what we miss*
- *Nuclear obscuration at high redshift*

16-18: **Marta Volonteri**

- *The role of feedback at high redshift*
- *How is the observed AGN vs. galaxy coevolution shaped?*

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## Thursday, October 29<sup>th</sup>

10-11: **Roberto Gilli**

- *Observational evidence of feedback at high redshift*
- *Large-scale structures at high redshift: source overdensities and proximity effects*

### OPEN ISSUES

11-12: **Eros Vanzella**

- *Exploring the farthest and faintest galaxies with deep spectroscopy: the first two Gyrs after the Big-Bang*

12-13: **Marta Volonteri**

- *Models vs. observations*

14-15: **Marta Volonteri: *Growing black holes in growing galaxies*** (seminar)

## Friday, October 30<sup>th</sup>

10-11: **Eros Vanzella**

- *Next-generation optical/near-IR facilities: JWST and ELT*

11-12: **Roberto Gilli**

- *Future X-ray facilities: eROSITA, Athena, and X-ray Surveyor*
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