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

Aula della Specola, Via Zamboni 33

Monday, October 26th, 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 27th

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 28th

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?

Thursday, October 29th

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 30th

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