

ASTROPHYSICS SEMINAR

Wednesday, 12 December 2012 at 11:00

Evolution of galaxies during the epoch of reionization

Nicolas Laporte

IRAP - Observatoire Midi-Pyrénées, Toulouse, France

Abstract. Evolution of galaxies is well known up to $z \sim 5$, but beyond this limit and regarding the few number of galaxies confirmed by spectroscopy, their evolution is still uncertain. We have conducted two different surveys aiming to explore the high-redshift Universe : one taking benefit from the use of a lensing cluster (behind Abell 2667, to select faint sources at high-redshift) and another, the WUDS survey, using a large field of view ($\sim 400 \text{ arcmin}^2$) to select bright sources at $z > 4.5$. We have used different set of data coming from HAWK-I and FORS2 @ VLT, IRAC and MIPS @ Spitzer, PACS and SPIRE @ Herschel and ACS @ HST to constrain the SED of the best candidates highlighted in our two surveys. Using all these data, we have shown the existence of extreme mid- z interlopers which can contaminate bright high- z sample and thus bias the results on the evolution of galaxies. During this talk, I will present you first the two surveys and the method I used to select high- z candidates as well as the different kind of contaminants found in these studies, and then the evolution of galaxies from $z \sim 5$ up to 9 as seen by the WUDS project and the survey behind A2667. I will finish my presentation by giving some perspectives, and especially the results that we can expect from futures instruments and telescopes (e.g. KMOS and MUSE @ VLT, EMIR @ GTC, JWST, Euclid and the E-ELT).

Additional Information

The seminars are given in the ISDC "Pavillon" building
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