

Seminarium Astrofizyczne
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The Final Frontier. The properties of galaxies in the Early Universe.

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Due to the abundance of the observations we already have a pretty good understanding of the structure and properties of the local galaxies ($z \sim 0$). However, the situation is less clear when it comes to the high redshift galaxies ($z > 2$). One is certain, the high redshift Universe differs from the one we can observe locally. Galaxies at high redshift tend to have higher star-formation rates than galaxies of the same mass in the local Universe. At redshift $z=2$, when the Universe was roughly 3.5 billion years old, galaxies were forming stars at rates of tens to hundreds of solar masses per year. Star-forming galaxies at that time had very irregular morphologies, and their images are sometimes dominated by several prominent “clumps”.

It is no surprise then, that the main focus in the astronomical studies right now is pushed toward the observations of these earliest galaxies. During my seminar I will present and discuss some of the recent studies of the nature and evolution of high redshift galaxies, from cosmic noon to re-ionization, as derived from a variety of observational evidence collected across the whole electromagnetic spectrum with the use of modern Great Observatories (in orbit and on the ground).

Serdecznie zapraszam,
Agnieszka Majczyna