Star clusters: basic galactic building blocks
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Bridging galactic star formation from intermediate to local epochs

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Abstract. Starburst galaxies trace the star-formation history of the Universe throughout cosmological time. Several studies have shown that the star-formation-rate density of the Universe begins to steadily decline after the Universe had aged ~ 5.8 Gyr (redshifts $z \sim 1$). However, we do not yet fully understand the mechanism behind this shift in star formation at intermediate z. One possibility is that during this epoch galaxies underwent 'downsizing,' a shift in star formation being dominated by high- to lower-mass galaxies. Rest-frame ultraviolet (UV) observations of starburst galaxies reveal regions of young stellar clusters where massive O and B stars dominate the luminosity. Observations in the FUV (~ 1500 Å) can be used to detect starburst galaxies at $z < 1$ because the bright end of the rest-frame FUV spectrum is not redshifted much, and is observable in the FUV filter. Alternatively, the rest-frame FUV light from starburst galaxies at higher redshifts is shifted to longer wavelengths and must be observed in redder filters. We present a study of the starburst population at intermediate z from FUV data taken with *Hubble*'s Solar Blind Channel (SBC) of the Advanced Camera for Surveys (ACS). The number counts of FUV galaxies as a function of magnitude provide a direct statistical measure of the density and evolution of starbursts, and subsequently of the stellar clusters formed within these galaxies' environments. We present a comparison between the FUV starburst-galaxy counts at this epoch, and the local FUV counts of starbursts observed with *GALEX*.

Keywords. galaxies: evolution, galaxies: starburst, galaxies: statistics

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The full poster (in pdf format) is available at
`http://www.astro.iag.usp.br/~iaus266/Posters/pVoyer1.pdf`.