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国台学术报告 NAOC COLLOQUIUM

Time: Wednesday 2:30 PM, Sep 30 **Location: A601 NAOC**

How environment shapes galaxy evolution: the satellite galaxies' perspective

Dr. Anna Pasquali

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Dr. Anna Pasquali obtained her PhD degree in Astronomy in 1995 from the University of Florence (Italy) with a thesis on the observed properties of circumstellar nebulae associated with hot stars, like Planetary Nebulae and massive young stars. Part of her thesis was carried out at the Space Telescope Science Institute, where she was also post-doc. In 1997, Dr. Pasquali took up a staff position at the European Coordinating Facility for HST, at the ESO Headquarters in Germany. There, she was in charge of the calibration of the slitless spectroscopy mode of the Advanced Camera for Survey onboard HST. In 2003, Dr. Pasquali moved to the Astronomy Department of the Swiss Federal Institute of Technology (ETH) in Zurich, with a Data specialist staff position. In 2005, she moved to Heidelberg, Germany, first as a Research Assistant at the Max Planck Institut fuer Astronomie, and

later as a staff member of the Astronomisches Rechen Institut of the Heidelberg University. The main research interests of Dr. Pasquali concern observational astronomy, namely stellar populations in the Milky Way and in external galaxies, and galaxy environment.

Abstract

It is by now well established that galaxy evolution is driven by intrinsic and environmental processes, both contributing to shape the observed properties of galaxies. A number of early studies, both observational and theoretical, have shown that the star formation activity of galaxies depends on their environmental local density and also on galaxy hierarchy, i.e. centrals vs. satellites. Contrary to their central (most massive) galaxy of a group/cluster, satellite galaxies are stripped of their gas and stars, and have their star formation



quenched by their environment. Large galaxy surveys like SDSS now permit us to investigate in detail environment-driven transformation processes by comparing centrals and satellites. In this talk I will summarize what we have so far learnt about environmental effects by analysing the observed properties of local central and satellite galaxies in SDSS, as a function of their stellar mass and the dark matter mass of their host group/cluster.

All are welcome! Tea, coffee, biscuits will be served at 2:15 PM.