

VST in the era of the large sky surveys



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The WFIRST Exoplanet Microlensing Survey

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The Wide Field Infrared Survey Telescope (WFIRST) is a NASA space observatory designed to address key questions about the Universe and the population of extrasolar planets in our Galaxy. WFIRST is planned for launch in the mid-2020s. One of the main WFIRST science program is a statistical census of exoplanets with a microlensing survey, using about one quarter of the overall observing time. Specifically, the microlensing campaign is expected to be sensitive to detect low-mass planets at orbital separation greater than about 1 AU and to free-floating planets down to the mass of Mars. I am going to introduce the science case of microlensing exoplanets and the WFIRST mission. I will describe the expected yield of the WFIRST microlensing survey and I will report on the main outcomes of some of the current observational programs preliminary to the WFIRST mission. Finally, I will outline the possible role of the VST during the WFIRST microlensing survey.

Presenter: CALCHI NOVATI, S.