

Kenneth P. Dietrich School of Arts and Sciences Department of Physics and Astronomy

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Dear Promotion Committee:

I write in support of the promotion case for J. Alberto Vazquez. I am the former Spokesperson for the third generation of the Sloan Digital Sky Survey (SDSS III).

Dr. Vazquez made useful and important contributions to several papers exploring the key impact of SDSS-III observation to cosmology. Specifically he worked on the Baryon Ascillation Spectroscopic Survey (BOSS) part of SDSS-III, where we used measurements of the distribution of galaxies in the cosmos to measure the dark matter and dark energy that dominate the expansion of the Universe and the development of large scale structure. As part of his work he made substantial contributions to the SDSS-III paper "Cosmological Implications of Baryon Acoustic Oscillation Measurements", 2015, Phys Rev D. He worked on both the code underlying the cosmological calculations and the preparation of the final figures, tables, and results. This paper presented the combined cosmological results of the 11th dara release from SDSS-III and represents a significant milestone in presenting comprehensive cosmological measurements from SDSS-III.

The second highly visible paper that Dr. Vazquez made significant contributions to was "The Clustering of Galaxies in the Completed SDSS-IIII Baryon Oscillation Spectroscopic Survey: Cosmological Analysis of the DR12 Galaxy Sample." This paper presented the final galaxy clustering-derived cosmological results from the 12th and final data release from SDSS-III. Dr. Vazquez worked hard on the key section of the paper that determined and presented the cosmological results from the 1 million galaxies observed by SDSS-III and has been cited over 1,000 times.



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Since his work with SDSS-III, Dr. Vazquez has continued to use his expertise in the theory and calculation of models of dark energy to help further our understanding of the greatest question facing cosmology today.

Sincerely,

Michael Nove Lesa

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