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Enhancing VRO/LSST Cosmology with Deep Spectroscopy[1] JEFFREY NEWMAN, Univ of Pittsburgh, LSST DARK ENERGY SCIENCE COLLABORATION COLLABORATION[2] — The LSST Survey from the Vera Rubin Observatory will provide a variety of measurements of cosmological parameters via deep imaging of more than half of the sky. However, LSST's cosmological constraining power can be greatly increased beyond its baseline capabilities using deep spectroscopic datasets from upcoming or proposed instruments and telescopes. In this talk I will provide an overview of how the work of the LSST Dark Energy Science Collaboration would benefit from additional data from spectroscopic facilities. I will particularly focus on the need for spectroscopy to train photometric redshift algorithms, which has the potential to improve dark energy constraints from VRO/LSST by ˜40%. I will summarize the landscape of facilities that may be available for this work over the next decade and the amount of time needed at any of the possible sites to accomplish these goals.

[1]DOE, Office of Science, Office of High Energy Physics
[2]Also relevant for DESI, MegaMapper, and MSE

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