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Abstract for an Invited Paper
for the APR21 Meeting of
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Maria Goeppert Mayer Award (2020): Cosmology with Large Galaxy Surveys

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The accelerated expansion of the Universe is the most surprising cosmological discovery in decades. It has inspired a new generation of ambitious surveys which will soon map billions of galaxies and probe cosmic structure formation with high statistical precision. In my talk, I will introduce the landscape of current and near-future wide-field galaxy surveys and the different measurement techniques used by these experiments. I will describe opportunities and challenges of cosmological analyses in the presence of complex systematic effects, using recent results from the Dark Energy Survey as pathfinder examples. I will further give an outlook on cosmology analysis plans upcoming experiments, such as Rubin Observatory and Roman Space Telescope, and synergies with multi-wavelength observations.