A Paradigm Shift in Planetary Exploration? K. McGouldrick¹, ¹University of Colordao Boulder (kevin.mcgouldrick@lasp.colorado.edu).

Over 3000 extrasolar planets have now been discovered, and the vast majority of these via the transit method. Looking forward, we will soon be seeing a tremendous volume of exoplanetary data derived from observations of transiting exoplanets. For the most part, due to the realities of transit observations of exoplanets, this information will be atmospheric in nature. Making sense of this coming dataset requires a more thorough understanding of the terrestrial planetary atmospheres in our own solar system. Here, I argue that as a result of the growing field of exoplanetology we are at the cusp of a major shift in the methods used to understand planetary processes, and that responding to this shift will require a new way of thinking about and executing the tasks of planetary exploration.