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Mapping the Spatial Extent of Star Formation in Filamentary Structures[1] CHANUNTORN PUMPO, VANESSA HAVENS, NANCY ASANTE, ROSE FINN, Siena College — We are conducting a multi-wavelength study of the gas in galaxies at a variety of positions in the cosmic web surrounding the Virgo cluster, one of the best studied regions of high density in the Universe. Galaxies are very likely pre-processed in filaments before falling into clusters, and our goal is to understand how galaxies are altered as they move through the cosmic web and enter the densest regions. In this poster, we present resolved H-alpha imaging for galaxies in the NGC5353 filament, which runs tangentially behind the Virgo Cluster. The H-alpha imaging data were taken with the KPNO 0.9-m telescope on Kitt Peak, and the goal is to measure the spatial distribution of star formation and compare with the distribution of the stellar disk. We will combine the star-formation maps with observations of molecular and atomic gas to calculate gas consumption timescales, characterize multiple phases of the galactic gas, and look for signatures of environmentally-driven depletion.

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