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Stellar Population Synthesis in BST1047+1156 KERI WOOD, CHRIS MIHOS, Case Western Reserve University — We are creating sample stellar populations to model potential formation scenarios of the galaxy BST1047+1156 in preparation for Hubble data coming in mid-2022. BST1047+1156 is an ultra-diffuse galaxy found in the Leo I galaxy group. With very blue optical colors and far ultraviolet emission, this galaxy has likely experienced a recent burst of star formation. However, the density of gas in the galaxy falls well below levels at which star formation is typically observed, making its star formation history especially intriguing. The galaxy could have been an established low surface brightness galaxy involved in a tidal interaction, or it could have been recently born from the tidal debris of the Leo I group. An older LSB with a recent interaction would have a mix of young and old stellar populations, while a recently formed tidal dwarf would only have young stars. By estimating and comparing the relative fractions of old and young populations, we hope to learn more about the history of this galaxy.

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