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Observing Dwarf Galaxies in the Local Universe

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Dwarf galaxies in the Local Group are key probes of both dark matter and galaxy formation. They are the smallest, oldest, most dark matter-dominated, and least chemically enriched stellar systems currently known. However, despite two decades of major computational, theoretical, and observational advances in this field, we are still working toward a complete understanding of star and galaxy formation at the faint end of the galaxy luminosity function. In the last year, large sky surveys such as the Dark Energy Survey and Pan-STARRS have made an unprecedented series of discoveries, nearly doubling the population of Milky Way satellite galaxies that was known at the start of 2015. This increase in the number of nearby dwarfs may significantly improve the sensitivity of searches for dark matter annihilation radiation. Many of these new dwarfs are likely to have originated as satellites of the Magellanic Clouds, providing a unique opportunity to study the effect of galactic environment on the formation of the faintest dwarfs. I will provide an overview of recent discoveries and how they fit in to the previously known population of nearby dwarf galaxies, highlighting a few of the most interesting objects from the perspective of dark matter and stellar nucleosynthesis.