The light of a Billion Stars: Dark matter and the stellar halo

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Our view of the stellar halos of large galaxies is being revolutionised as deep surveys reveal a wealth of stellar streams and shells. As the remnants of progenitors that have been tidally disrupted in the galactic potential, this stellar debris offers the promise of determining the dark matter properties of the halo. Here, I will review the current state of the field, and provide a panoramic view of our Local Group. As Gaia and spectroscopic observations unveil the full phase-space properties of numerous stellar streams, I will explore just what stellar halos can reveal about the properties of dark matter.

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