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## Unraveling the Universe with cosmic voids

*Thursday, 8 July 2021 16:50 (20 minutes)*

Modern surveys provide access to high-quality measurements on large areas of the sky, sampling the galaxy distribution in detail also in the emptiest regions, voids. Void cosmology is becoming an increasingly active sector of galaxy clustering analysis: by measuring void properties, such as density profiles or void number counts, it is possible to constrain cosmological parameters. Cosmic voids are particularly sensitive to the properties of dark energy and neutrinos, and are a powerful tool to test modifications of the laws of general relativity. Studying voids provides a novel perspective to unravel the unsolved mysteries of our Universe.

In this talk I introduce cosmic voids as a tool for cosmology, I present recent results—with a particular focus on the advantages of calibration-free approaches—and I discuss future developments in the field.

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