

Observing the String Axiverse

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Axion-like particles (ALPs) populating many decades in mass (an “axiverse”) are generically predicted by string theory. Depending on their mass and production mechanism, these ALPs may contribute to dark matter, dark energy and dark radiation. Such ALPs are potentially observable via their interaction with electromagnetism, leading to ALP-photon conversion in an external magnetic field. I will present predicted signals from axiverse dark matter and dark radiation in galaxies and galaxy clusters.

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