



复旦大学物理系 Colloquium

Time: 14:00, Tuesday, 2023.5.16

Location: C108, Jiangwan Physics Building (线下报告)

Dark radiation in the Universe

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Abstract: The nature of the dark sector remains a mystery to date, despite being the gateway to understand various mysteries of the cosmo. In this talk, I present some novel mechanisms to probe the properties of the axion, a candidate for the dark matter and the dark energy. I revise the thermal production of the axion in the early Universe and assess the bounds against data from CMB anisotropies and large-scale structures. Talk based on 2205.01637.



Biography: I am an Associate Professor in physics at Shanghai Jiao Tong University and a Fellow at the Tsung-Dao Lee Institute. Previously, I worked in Italy, the Netherlands, Sweden, and I graduated from The University of Utah in Salt Lake City (USA).

My research activity spans various interesting topics including particle astrophysics, dark matter, dark energy, and black holes. I focus on exploring the role the axion as a dark matter candidate, on the Hubble tension, and on cosmological aspects of black holes.