

## Dark matter searches with the CMB

*Friday, 2 June 2023 13:55 (25 minutes)*

Dark matter candidates like the WIMPs and primordial black holes are involved in long-time scale energy emission processes, such as annihilation, decay, black hole evaporation and accretion. Such energy injection during the dark age of the Universe modifies the cosmic ionization and temperature evolution, which lead to observable impacts on the anisotropy spectrum of the cosmic microwave background, as well as in major CMB derivatives, like the 21cm signal, and precision cosmological fits. I will discuss the current status and near-future prospects of these CMB-related methods for dark matter indirect searches.

**Primary author:** Dr GAO, Yu (IHEP)

**Presenter:** Dr GAO, Yu (IHEP)

**Session Classification:** DM