

OBSERVATIONAL SIGNATURES OF DARK MATTER? *

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The physical structure of dark matter is a major open question in the field of cosmology. There is little or no consensus as to which of the proposed models is the most likely candidate. This difficulty arises primarily due to the lack of potential evidence offered by these models. Most theories of dark matter involve the introduction of new particle species whose interactions with ordinary matter are fundamentally weak making any direct observation difficult. An alternative scenario, to be discussed here by Michael Forbes, in which the dark matter consists of ordinary quarks and antiquarks in a colour superconducting phase several observational consequences arise. In this talk I will discuss several observational signatures that necessarily accompany this dark matter candidate. These will be shown to be not only consistent with present data but may indeed provide the source of several forms of cosmic emission not currently explained by known astrophysical phenomenon.

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