

Dark Matter: thermal and non-thermal

D.S. Gorbunov

Институт ядерных исследований Российской академии наук

We discuss a general concept of dark matter: why do we need it and what properties must be fulfilled for a component to form a viable dark matter. Naturalness, minimality and other concepts may be adopted to navigate among the dark matter candidates. Dark matter may be thermal and non-thermal, may be produced in the late Universe, right before the equality epoch or in the earliest inflationary stage, may show up in the ongoing particle physics experiment or exhibit only gravitational interactions.