



Contribution ID: 43

Type: **Lecture**

Who was first: PBH or galaxies? Pro and contra.

Tuesday 22 July 2025 18:15 (35 minutes)

It is usually assumed that supermassive black holes (SMBH) are created by matter accretion to excessive density in galactic centers. However, the estimated necessary time is by far longer than the age of the universe. Moreover, SMBHs are observed also in the early universe, when the available time is much shorter. These and plenty of other facts present strong evidence in favor of an inverted mechanism of galaxy formation: firstly PBH emerged in the very early universe and later they seeded galaxy creation. This conjecture is supported, in particular, by the measured mass spectrum of PBH, the appearance of intermediate mass black holes in dwarf galaxies and globular clusters, existence of supermassive black holes in (almost) empty space in contemporary and early universe, and observations of antimatter in our Galaxy: in particular, of antinuclej, antistars and even possible star-antistar annihilation.

Internet talk

No

Is this an abstract from experimental collaboration?

No

Name of experiment and experimental site

N/A

Is the speaker for that presentation defined?

Yes

Details

N/A

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