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Mutual dependence of a bosonic black hole with dark matter and explanation of asymptotically flat galaxy rotation curves.

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Dark matter makes itself felt only due to the gravitational interaction. Quanta of ordinary matter in flat space are described by vector fields. Let us assume that the wave function of dark matter quanta is also a vector field. Then it makes sense to find such a vector field in the general theory of relativity, which manifests itself exclusively in curved space-time...(see other details in the articles below)

Information on the subject:
1.
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2.
Vector fields in multidimensional cosmology. Proceedings of PIRT-2011 Moscow, p.211, (2012)
3.
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4.
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5.
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Motion in a Central Field with Account of Dark Matter. Gravitation and Cosmology 23(3), 251 (2017)
10. О равновесном состоянии гравитирующего конденсата Бозе-Эйнштейна ЖЭТФ 154(5), 1000 (2018)
11. Static State of a Black Hole Supported by Dark Matter. Universe 5(9), 198 (2019)
12. Black hole in balance with dark matter. International Journal of Modern Physics A35, (2&3), 2040050 (2020)
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15. Gravitational Radius in view of Existence and Uniqueness Theorem. J. Phys. CS 2081, 012026 (2021)
16. Bose-Einstein Condensate in Synchronous Coordinates. Phys. Sci. Forum 7, 47 (2023)
17. Черная дыра и темная материя в синхронной системе координат. ЖЭТФ 163(5), 660 (2023)
18.
О гравитационном поле чёрной дыры в синхронной системе координат В книге: Физические интерпретации теории относительности (PIRT-2023) Сборник

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