

ROLE OF GRAVITATION IN CREATION OF CONDITIONS FOR DEVELOPMENT OF LIFE IN THE UNIVERSE

Summary

In the paper a special role of gravitation as an interaction causing formation of large astrophysical objects with small entropy is analyzed. This is apparently in contradiction with the II law of thermodynamics. Some basic types of such objects have been examined from the point of view of entropy dynamics. It has been stressed that in the far future black

holes will play a special role in creation of conditions for maintaining the existence and the development of civilization. It has been shown numerically that in the universe with accelerating expansion the conditions for a surviving civilization will be worse than in standard cosmological models because of faster thermal death.