
Evolution and ecology of the early Universe

© G.I. Lovetsky

Bauman Moscow State Technical University, Kaluga Branch, Kaluga, 248000, Russia

The anthropic principle is not a convincing argument in favor of the reasonableness of the Universe because of possible cosmic catastrophe scenarios and tragic extinction of the Sun and the Universe as a whole. The author proposes the hypothesis of ecological niches generated by stochastic processes of the Universe evolution.

Keywords: space ecology, the hypothesis of ecological niches of the early Universe.

REFERENCES

- [1] Ferguson K. *Stiven Khoking: Zhizn i nauka* [Stephen Hawking: Life and Science]. Moscow, ACT Publ., 2014, 496 p. [in Russian].
- [2] Sidnyaev N.I. *Alma mater. Vestnik vysshey shkoly — Alma mater. Herald of the Higher School*, 2014, no. 9, pp. 9 – 16.
- [3] Davis P. *Supersila* [Superpower]. Moscow, Mir Publ., 1989, 272 p. [in Russian].
- [4] Penrose R. *Prostranstvo-vremya i kosmologiya. Khoking i dr. Bolshoe, maloe i chelovecheskiy razum* [Space-Time and Cosmology. Hawking et al. The Large, the Small and the Human Mind]. St. Peterburg, Amfora Publ., 2014, 191 p. [in Russian].
- [5] Hawking S., Mlodinov L. *The Grand Design*. Bantam book, 2011. [in Russian: Khoking S., Mlodinov L. *Vysshiiy zamysel*]. St. Petersburg, Amfora Publ., 2012, 208 p.
- [6] Kavinova I.P. *Gumanitarnyy vestnik — Humanities Gazette*, 2014, no. 12 (26).
- [7] Simanov A.L. *Filosofiya nauki — Philosophy of Science*, 2013, no. 3 (58), pp. 98–106.
- [8] Vaynberg S. *Mechty ob okonchatelnoy teorii. Fizika v poiskakh samykh fundamentalnykh zakonov prirody* [Dreams of a Final Theory. Physics in Search of the Most Fundamental Laws of Nature]. Moscow, LKI Publ., 2008, 256 p.
- [9] Ebeling V., Faystel R. *Khaos i kosmos: sinergetika evolutsii* [Chaos and Cosmos: the Evolution of Synergetics]. Moscow-Izhevsk, NITs “Regulyarnaya i khaoticheskaya dinamika” Publ., 2005, 336 p.
- [10] Mokshantsev L.V. *Gumanitarnyy vestnik — Humanities Gazette*, 2014, no. 7 (21).
- [11] Pavlenko A.I. *Vestnik RUDN, seriya Filosofiya — Bulletin of People's Friendship University, series: Philosophy*, 2013, no. 4, pp. 7–24.
- [12] Petrov A.N. *Gravitatsiya. Ot khrustalnykh sfer do krotovykh nor* [Gravitation. From Crystal Spheres to Wormholes]. Moscow, Fryazino town, Vek 2 Publ., 2013, 320 p.
- [13] Kuznetsov B.G. *Istoriya filosofii dlya fizikov i matematikov* [History of Philosophy for Physicists and Mathematicians]. Moscow, LKI Publ., 2007, 352 p.
- [14] Maksimov D.A. *Filosofiya nauki — Philosophy of Science*, 2011, no. 2 (49), pp. 106–139.
- [15] Fedosin S.G. *Fizika i filosofiya podobiya ot preonov do metagalaktik* [Physics and Philosophy of Similarity from Prequarks to Metagalaxies]. Perm, 1999, 544 p.

-
- [16] Shuvaev G.V. *Kontseptsiya nauchnoy kartiny vselennoy “Tsiklonicheskaya vselennaya”* [The Concept of the Scientific Pattern of the World “Cyclonic Universe”]. Yaroslavl, 2014, 230 p.
 - [17] Levitan E.P. *Fizika vselennoy: Ekskurs v problemu* [Physics of the Universe: Insight into the Problem]. Moscow, URSS Publ., 2013, 184 c.
 - [18] Smolyanskiy S.A. *Sorosovskiy obrazovatelnyy zhurnal — Soros Educational Journal*, 2001, vol. 7, no. 2, pp. 69–75.
 - [19] Novikov I.D. *Kak vzorvalas vselennaya* [How the Universe Exploded] Moscow, TERRA – Knizhnny Klub Publ., 2008, 272 p.
 - [20] Feygin O.G. *Stiven Khoking: geniy chernykh dyr* [Stephen Hawking: The Genius Of Black Holes]. Moscow, Eksmo Publ., 2010, 336 p.
 - [21] Feygin O.O. *Teoriya vsegoto* [Theory of Everything]. Moscow, Eksmo Publ., 2011, 304 p.
 - [22] Vilenkin A. *Mir mnogikh mirov: Fiziki v poiskakh parallelnykh vselennykh* [The World of Many Worlds: Physicists in Search of Parallel Universes]. Moscow, Astrel Publ., 2011, 303 p.
 - [23] Hawking S. *Tri knigi o prostranstve i vremeni* [Three Books about Space and Time]. St Petersburg, Amfora Publ., 2012, 503 p. [in Russian].
 - [24] Penrose R. *Tsikly vremeni. Novyy vzglyad na evolutsiyu vselennoy* [Cycles of Time: An Extraordinary New View of the Universe]. Moscow, Binom, Knowledge Laboratory Publ., 2014, 333 p. [in Russian].
 - [25] Sharf K. *V mire nauki — In the World of Science*, 2012, no. 10, pp. 20–26.
 - [26] Feygin O.G. *Nauka buduschego* [Science of the Future]. Moscow, Binom, Knowledge Laboratory Publ., 2013, 248 p.
 - [27] Storozhuk A.Yu. *Filosofiya nauki — Philosophy of Science*, 2013, no. 2 (57), pp. 73–81.

Lovetsky G.I., Dr. Sci. (Philology), professor, head of the Department of Philosophy and Political Sciences at Bauman Moscow State Technical University, Kaluga Branch. Research interests: social philosophy, philosophy of science and technology.
e-mail: ce3@bmstu-kaluga.ru
