

Microbial Model of the Expansion of the Universe According to Hubble

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Abstract

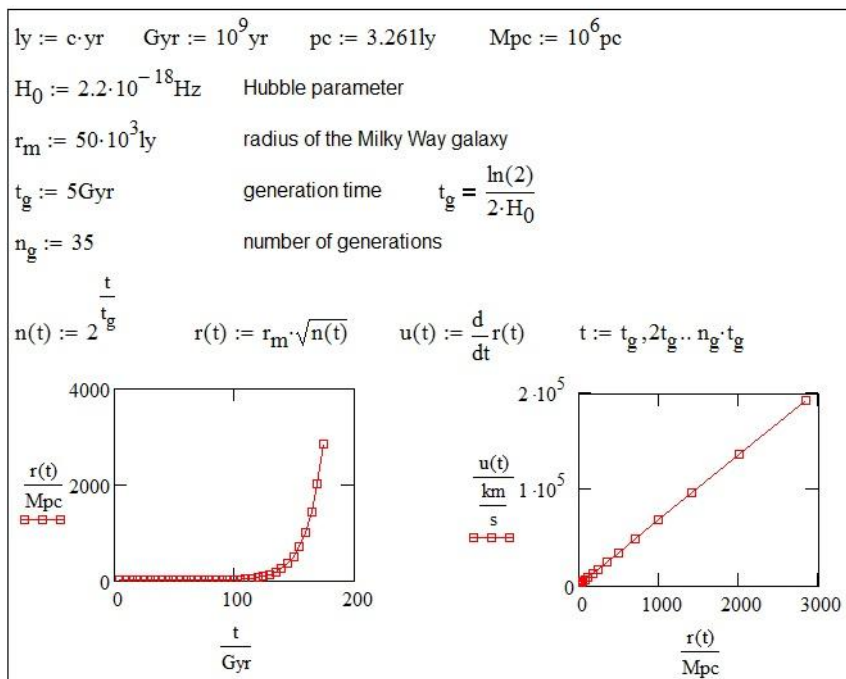
From the point of view of a microbiologist, the Hubble equation describes the expansion of the Universe as an exponential growth phase of a colony of microbes-galaxies on the surface of a dark nutrient medium. In the microbial model, the growth of a colony is carried out by the reproduction of galaxies by binary fission with a generation time of $5 \cdot 10^9$ years. The currently observed number of galaxies of the order of 10^{11} corresponds to 35 generations in the model.

Text

On the site [1] there is a short accessible description of the growth of a colony of microbes or a population of bacteria.

In the exponential phase, the growing bacterial population doubles at regular intervals, called the generation time. Growth is by geometric progression: 1, 2, 4, 8, etc. or $2^0, 2^1, 2^2, 2^3, \dots, 2^n$, where n - the number of generations.

Figure shows a mathcad-file of calculations for a microbial model that simulates the expansion of the Universe in accordance with the empirical Hubble equation with the parameter $H_0 = 2.2 \cdot 10^{-18}$ Hz [2].



I note that at present it is customary to consider the observed cases of pairwise adjoining galaxies as a picture of their merger or collision [3-4].

The microbial model forces us to consider them as a picture of the reproduction of galaxies by binary fission. This interpretation looks more alive and allows you to slightly go beyond the mechanistic models of the Universe.

Links

- 1_ http://textbookofbacteriology.net/growth_3.html
- 2_ <https://www.pnas.org/doi/pdf/10.1073/pnas.2536799100>
- 3_ https://en.wikipedia.org/wiki/Galaxy_merger#:~:text=Galaxy
- 4_ https://www.nasa.gov/mission_pages/hubble/science/collision-rate.html