### Breath of the Sun and pandemic

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### Abstract

Within the framework of similarity of analogies, the interrelation of stellar and planetary forms of life is considered, which allows interpreting and predicting the dynamics of a pandemic in the spirit of Alexander Chizhevsky - as the terrestrial echo of solar storms.

## Text

Astrophysicists, due to the specifics of their profession, are able to see earthly problems in the context of the Universe - this is amazing and pleasing. For example, Fred Hoyle admitted an extraterrestrial cause of influenza pandemics - viruses can be carried in by cosmic dust and take root during periods of a calm Sun, when there is no sterilizer for near-earth space - solar flares. From May 2019 to September 2020, the Sun was unusually calm - there were practically no flare activity and spots on it - and only now it began to come to life, so it can be predicted that the extraterrestrial source of the pandemic will soon dry up. Fred Hoyle et al. Diseases from Space (1979)

# https://ia800603.us.archive.org/23/items/B-001-024-178/B-001-024-178.pdf

For life on the Earth's surface, it seems that the relationship of sunspots and flares with a coronal mass ejection is especially interesting. It is curious to look at it as a reflection of the pulsation of the Sun, admitting an analogy and thermal similarity with our breathing, since the Sun and man have a close density and shine like Planck's warm-blooded black bodies. For warm-blooded animals, respiration rate is inversely proportional to body weight. The mass of a person weighing 70 kg pulsates during breathing with an amplitude of 0.6 g with a period of 4.3 s at a body luminosity of 100 W. The similarity of analogies allows us to make the same estimates for the Sun: flare activity, which makes up 10% of the coronal respiration of the Sun, pulsates with an amplitude of 5.225 ·10<sup>4</sup> kg with a period of 11.8 years, with a body luminosity of 3.828 ·10<sup>26</sup> W. Now we are present at the beginning of the next inhalation-exhalation - the Sun has already taken 238 million breaths, or half as much, if we recognize significant differences in the shape of the latitudinal distribution of spots in neighboring cycles - this corresponds to 32 or 16 years of age on the scale of human life with a duration 82 years old.

Figure 1 shows the typical dynamics of the latitudinal distribution of sunspots - it visually resembles X-ray photographs of human lungs in the inhalation-exhalation cycle. The drawing is taken from the book - Kostitsyn V.A. The Origin of the Universe (1926). <u>https://www.twirpx.org/file/3323710/</u>



Fig. 1. Sun belts where spots are formed.

Figure 2 compares the graphs of the dynamics of the latitudinal distribution and the number of sunspots - the latter is taken from the NASA website and corresponds to solar cycles numbered 12 and 13. https://www.swpc.noaa.gov/products/solar-cycle-progression#



Fig. 2. Dynamics of latitudinal distribution and sunspot abundance.

### Conclusions

It seems that flares are an integral part of the life of our star in the galaxy and they are reflected in our life. It can be assumed that solar activity is determined by reasons external to the Sun that make it respond in a regular rhythm with outbursts with emissions, which, in turn, make our life respond to them with outbreaks of pandemics with a certain phase shift.