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THE IMPACT OF SCHUMANN RESONANCE ON THE HUMAN BODY

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Abstract. *This paper provides an informative review of studies on the Earth's natural electromagnetic resonance, the so-called Schumann resonance. It discusses the potential applications of this phenomenon in various fields, with particular emphasis on its role in the sensing and monitoring of catastrophic events. Special attention is given to its interaction with living organisms, especially the human body, due to its proximity to brainwave frequencies (delta, theta, alpha, beta, gamma). Research findings indicate that the fundamental Schumann frequency of 7.83 Hz may reduce stress, improve sleep quality, enhance cognitive functions, and contribute to emotional stability.*

Key words: *Schumann resonance, harmonic oscillations, synchronization, vibration.*

Introduction

Schumann resonance is a natural electromagnetic wave that occurs in the cavity between the Earth and the ionosphere at extremely low frequencies, primarily at 7.83 Hz and its higher harmonics (14.07, 20.25, 26.41, 35.42 Hz). It is generated mainly by global lightning activity and propagates in the form of standing waves within the Earth–ionosphere cavity.

For resonance to occur, the wavelength must be a multiple of the Earth's circumference. Under these conditions, peaks in the extremely low frequency (ELF) range emerge – about 100,000 times smaller than radio wave frequencies. As these waves encircle the planet, constructive interference occurs, producing standing oscillations (Fig. 1).

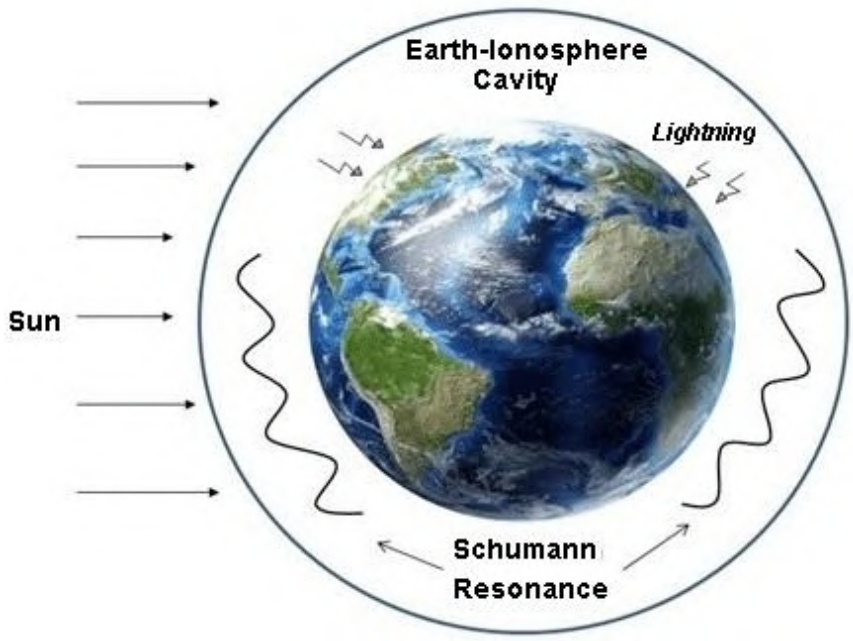

Fig. 1. Schumann resonance.

This unique global electromagnetic phenomenon has been linked to various catastrophic events on Earth. Observations suggest that the frequency and intensity of Schumann resonances may vary during lightning

storms, volcanic eruptions, and possibly earthquakes and climate-related changes [1–5]. Additionally, studies highlight its interaction with biological systems, as Schumann frequencies closely correspond to human brain rhythms, potentially influencing both physiological and psychological processes.

Main part

Schumann resonance is often referred to as the "pulse of the Earth," analogous to a planetary heartbeat. Numerous studies emphasize its direct impact not only on physical health but also on emotional and psychological well-being. The fundamental frequency (7.83 Hz) is particularly associated with positive effects on cognition, stress reduction, and sleep regulation.

Human brain activity is commonly categorized into frequency ranges:

- **Delta waves (0–4 Hz):** deep sleep, subconscious activity, emotions, endocrine regulation;
- **Theta waves (4–8 Hz):** REM sleep, relaxation, creativity, learning processes;
- **Alpha waves (8–12 Hz):** relaxation with closed eyes, mental calmness, focus, visualization;
- **Beta waves (12–30 Hz):** active wakefulness, concentration, alertness, heightened anxiety;
- **Gamma waves (30+ Hz):** higher cognitive functions, problem solving, creativity, meditation, global neural synchronization.

When alpha and theta brainwaves synchronize with Schumann frequencies, the human body enters states of relaxation and restorative resonance. Research suggests that such synchronization contributes to cellular regeneration, stress relief, and overall healing.

Fig. 2 shows the spectrogram showing changes in the Earth's vibrational level.

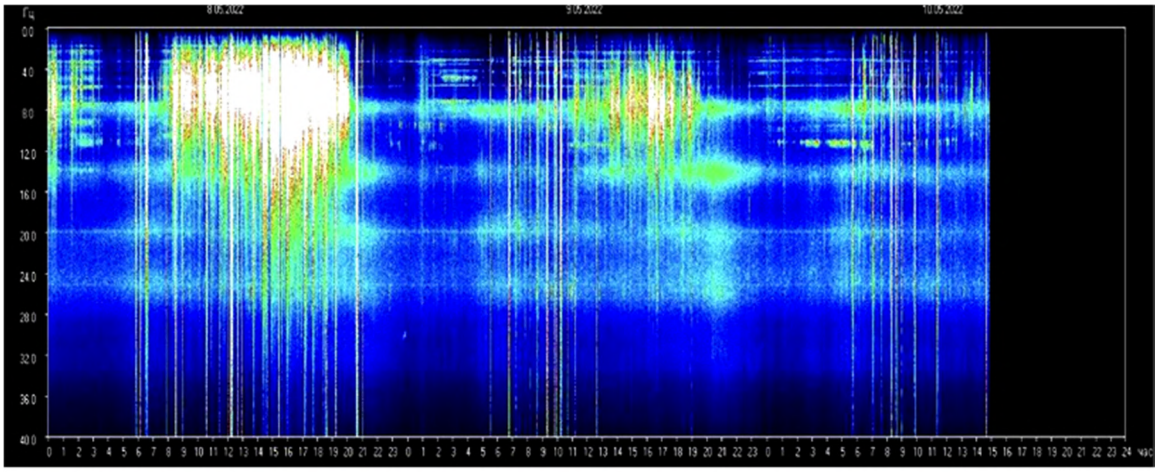

Fig. 2. Spectrogram showing changes in the Earth's vibrational level.

Spectrogram analysis shows that:

- **Blue areas** indicate the basic Schumann resonance level, associated with homeostasis and adaptation;
- **Green areas** reflect processes of "energy purification," often linked with irritability or emotional instability at the individual level;
- **White vertical lines** (40–100 Hz) correspond to high-frequency "energy charges" from space, often associated with heightened excitability, fatigue, or unusual physical sensations;
- **Red areas** mark dense energetic blockages, often correlated with exacerbation of health symptoms during intense energetic "loads."

Synchronization with Schumann frequencies can occur naturally through direct contact with nature – such as walking in forests, being near the sea, stargazing, meditation, or listening to resonant sound frequencies. Additionally, medical technologies such as **PEMF devices** (e.g., Helper ML) have been developed to artificially generate 7.83 Hz oscillations for therapeutic purposes [6–10].

It is important to note that the 7.83 Hz frequency can act both as a sedative and as a stimulator, supporting overall physiological harmony.

Conclusion

Schumann resonance, often described as the Earth's natural "pulse," represents a global synchronization mechanism between the planet and living organisms. Its fundamental and harmonic frequencies contribute to homeostasis, cellular repair, and the optimization of neurocognitive functions. Exposure to Schumann resonance is associated with improved physical health, emotional stability, and adaptive capacity. Although the phenomenon remains insufficiently studied, existing research strongly suggests its importance for human well-being and its potential role in monitoring global geophysical processes.

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