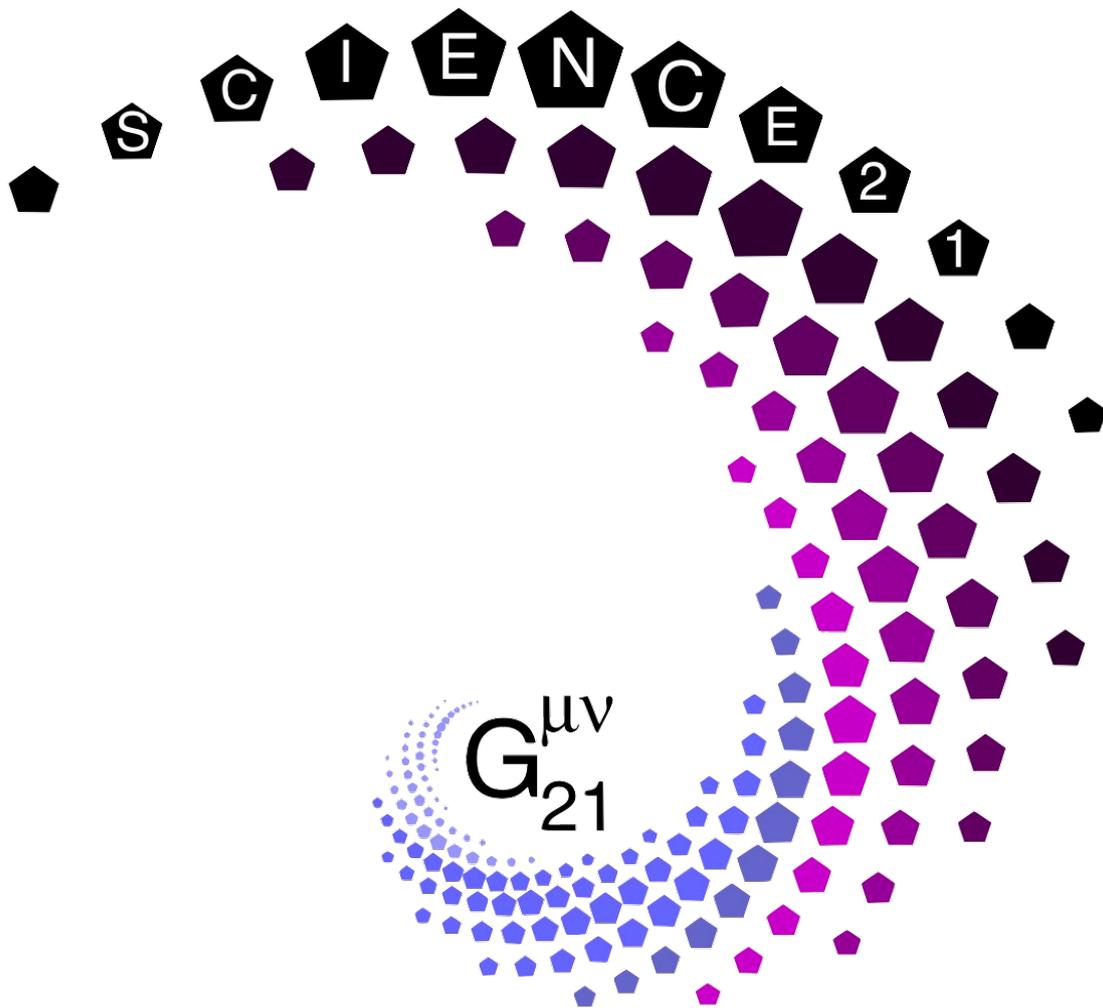


SCIENCE 21 FOUNDATION Annual Report year

2018



“The day science begins to study non-physical phenomena, it will make more progress in one decade than in all the previous centuries of its existence.”

— Nikola Tesla

Foreword

Today's Western, Euro-Atlantic society is in a period of unprecedented scientific and technological development. It brings new technologies, scientific discoveries but also the devastation of nature and the degradation of ethics on a global scale.

It seems that one of the causes of this state is a generally accepted way of strictly analytical thinking based on the principles of scientific methods of studying the surrounding reality. The scientific approach to viewing reality, formulated by philosophers such as Karl Raimund Popper, defines scientific truth as the result of observable reproduction or abstract reasoning that does not conflict with any generally accepted truth. Such a way of thinking should be "purely objective" as well as the truth that emerges in this way. Aspects of ethics and morality, which are completely absent in this way of examining reality, are being replaced by the opponents of other scientists. In addition, in order to withstand the ever-increasing competition, a scientist must specialize more and more deeply and focus on the very narrow aspects of the subject of research. This pressure is then very often what prevents the inclusion of key research results in the general framework.

In the first half of the twentieth century, a strictly scientifically objective way of research came to its limits. The arrival of Quantum Physics drew the role of the researcher himself (observer) into physical experiments and strongly shook the idea of an objective existence independent of the observer. A similar breakthrough in mathematics was the discovery of the Brno-born mathematician Kurt Gödel about the incompleteness of axiomatic systems, revealing the limits of rational (logical) knowledge.

These and other facts inspire many individuals and groups to gradually reconsider the traditional view of the world around us.

The aim of the foundation is to support scientific directions of research focused on key issues of the present, especially in the field of physical research, and at the same time develops research methods that develop the ability of harmonious cooperation, multidisciplinary knowledge synthesis and especially universal interdisciplinary cooperation.

Mission of the foundation

- The purpose of the foundation is public benefit and charity. The purpose of the foundation is basic and applied research in natural sciences with a focus on physics.
- Basic research in the field of human physical and mental potential with special movement patterns, including free fall.
- Association and support of exceptional personalities from the ranks of scientists, educators, inventors, artists, athletes and others regardless of age, social situation and education and their further development.
- Active search and association of talented people of all ages, including the so-called hidden talents and providing them with the support needed for their further development, including financial and primarily by creating conditions for studying at various types of schools and educational institutions with the simultaneous development of their physical and mental activity support for individuals and groups of people and their motivation for personal development, teamwork and universal interdisciplinary cooperation.

FOUNDATION ACTIVITIES

A) Donors:

In 2018, the foundation's activities focused on very promising gravity research. However, research and the subsequent multidisciplinary synthesis of the educational process also took place relatively intensively, albeit with a limited budget. The methods developed in this research were primarily applied to the researchers themselves supported by the Foundation. Of course, our physicists and their collaborators (including foreign ones) are among the biggest recipients of this support, who in this way (free fall under specific conditions and other methods) have a unique opportunity to get acquainted with the phenomenon of gravity in its most essential form. In the secondary plan, to a relevantly wide range of other subjects participating mainly in the research of neural performance fluctuations and its application to real life.

The main patron of the Foundation is still the visionary Karel Janeček, who also personally participates in a number of researches and who donated CZK 9,512,992 to the foundation. Its contribution is therefore not only financial but also scientific.

Another donor is Mrs. Renata Poláková CZK 5,665, who also personally participated in the research of changes in neural performance due to free fall.

B) Gifted:

1. Paraklub Olymp Praha – research of neural performance by free fall with emphasis on the safety of research participants - CZK 1,275,353
2. Hradčany Sports Club - research on the facilitation of the sensorimotor substrate of individuals older than 40 years - CZK 26,710
3. Dezso Sarkadi - dynamic component of gravity - CZK 184,206
4. Stephan Lars Drescher - Research of collective reflexes in school and preschool children and research and development of methods for increasing collective neural performance, its maintenance and subsequent use. Comprehensive methodology of higher order cooperation - 650,000 CZK
5. Tomáš Benka - development of educational experiments in physics and electrical engineering - 285,000 CZK
6. Jiří Neubauer - Research of neural performance on the Boeing 737 NG simulator - 64,500 CZK
7. Jana Navrkalová - Safety of parachute training - 14,000 CZK
8. Simone Bartolli - Research in the field of quantum and nuclear physics - 153,496 CZK

9. Lenka Kholová - Development of a new method of teaching first aid - CZK 3,000

10. Geraldo Dieppa Jr. - Research in the field of quantum and nuclear physics - CZK 80,895

C) Research projects:

- Most projects take place at the Foundation's headquarters, which serve not only to house individual physical experiments, but also for physical and educational activities. The building is adapted to individual needs during the year. Everything will be completed in 2019.

- In 2018, the foundation, under the leadership of prof. Raka and his collaborators in cooperation with a number of foreign experts in several physical experiments, the results of which will be presented at the conference "Physics Beyond Relativity", which will be organized by the Foundation in October 2019 (<http://science21.cz/conference/>).

Specifically, the following:

Research in the field of gravity

Gravitational interactions, despite considerable progress in both the experimental and theoretical fields, are still among the least studied force in physics. Although Einstein's General Theory of Relativity (GTR) has made great strides and revolutionized cosmology, there are still many unanswered questions. For example, we still lack a theory of gravity that is compatible with quantum physics. At galactic scales, deviations of observed orbital velocities of stars in spiral galaxies from those predicted by GTR are manifested. Contemporary physics explains these deviations using the as yet unconfirmed hypothesis, the existence of dark matter. However, there are also alternative directions of interpretation of rotational curves based on the assumption of modification of Newtonian mechanics (for example <https://sciencemag.cz/teorie-mond-temne-hmote-konkurujedal/>), or modifications of gravitational laws (see "Relational Mechanics and Implementation of Mach's Principle with Weber's Gravitational Force "by Andre Koch Torres Assis).

The foundation deals with the development of experimental methods using various torsional and vertical pendulums in order to detect the dynamic modifications of the law of gravity described above. In 2018, we managed to assemble two such devices on which measurements are now taking place.

Research in the field of quantum and nuclear physics

Another research direction is focused on the study of various types of radiation, such as soft X-rays produced by a spark discharge in various types of gaseous media. We

are completing an experiment to study a high-voltage discharge (~ 10 kV) in a hydrogen environment in order to confirm the hypothesis of the so-called "Small Hydrogen Atom" (details in "A new way to explain the 511 kV signal from the center of the Galaxy and its possible consequences" arXiv: 1304.0833 v3, 9 Jun 2013). Confirmation of this hypothesis is not only important for cosmological models, but also considerable technological potential. A device using state-of-the-art semiconductor Si-pixel detectors has been developed for radiation detection. Related publications, for example "Nuclear Instruments and Methods in Physics Research A 418 (1998) 405-419".

Research into the propagation of high voltage electromagnetic waves

In this research, we study possible anomalies arising from the propagation of electromagnetic waves excited by a high-voltage source in the region of about 500 kV. In cooperation with the CTU Faculty of Electrical Engineering, we designed a powerful Cockcroft-Walton generator, enabling the production of 500 kV Coulomb waves with a sub-nanosecond leading edge and a repetition frequency in the region of one kHz. To measure the characteristics of these waves, a detection system was designed based, among other things, on technologically demanding laser interferometry.

- In parallel with physics, the research of neural performance is continuously under the leadership of Stephan Lars Drescher and its application to the research and educational process.

Organization and development of educational programs

Within these programs, students participate in regular seminars, where theoretical information is presented, exchanged and discussed. New students are admitted gradually. As a practical part of the training in Kolodějí and as part of our research work, students and collaborating partners regularly participate in parachutist training and work with all other methods that we use to identify thought blocks and increase the potential of interns. Students write reports about their processes and their individual experiences associated with our training methods and theoretical concepts.

=> *basic curriculum* containing the theoretical basis of our work, which is:

a) 8 areas of potential development:

- Courage + Bravery
- Movement + Beauty
- Concentration + Connection of both cerebral hemispheres
- Equilibrium + Emotional stability
- Creativity + Flexibility

- Cooperation + Social skills

- Patience + Perseverance

=> *methods of block identification and potential increase:*

Freefall jumping, airplane simulator, gymnastics, yakumani, body balance, intuitive music, drawing with both cerebral hemispheres, mathematics, cold water, meditation, CZ pong, emotional stability (...)

b) Theory of thought

c) Theory of surreality (neural performance, life cycle dynamics, inhibition of neural performance, hyperlogics)

d) Dynamic paradigm

e) Dynamic team building

Organization of "module 1" for visitors, guests and cooperating partners and their hosting at the Foundation's headquarters. These visitors are from the ranks of scientists, teachers and other professions.

=> "Module 1" includes:

-flying, jumping jumps or free fall at various airports in the Czech Republic - an introduction to the basic theoretical basis of the Science Foundation 21

- planning and organization of individual cooperation and training by methods of science 21

=> Organization of excursions and conferences

Important meetings / conferences with cooperative partners in 2018 include:

- World Conference Time Waver + World Conscious, Bad Nauheim, Germany

- ECR Symposium, Kränzlin, Germany

- Lazlo Institute, Bagno di Lucca

CONCLUSION

In the course of 2018, significant progress was made in the areas of physical experiments, in the research of neural performance and the development of pedagogical methods, and in the establishment of new contacts in many fields at the international level. Physical experiments will be presented at a conference to be held in October 2019. At the same time, many workshops were held on the development of psychological and physical potential. These will be presented at the Open Day in 2019.