



Theory of Relativity and Philosophy

On the Occasion of the 100th Anniversary of Einstein's Special Theory of Relativity by the Croatian Philosophical Society

Introductory

The Theory of Relativity and Philosophy thematic section brings a selection of papers and articles presented at the 14th Days of Frane Petrić international and interdisciplinary symposium, held in the Town of Cres between 25 and 28 September 2005 and organised by the Croatian Philosophical Society. The aforesaid philosophical-scientific and cultural symposium – subtitled On the Occasion of the 100th Anniversary of Einstein's Special Theory of Relativity by the Croatian Philosophical Society, and on the trail of the World Year of Physics 2005 – was unique in the entire world since it followed the thread of the preceding traditional conferences in Cres, hometown of Frane Petrić, a renowned 16th century Croatian philosopher. The guiding thread of the symposium was modern and historical interdisciplinary reflection on the interrelations between the theory of relativity and philosophy, discussed by philosophers, physicists, philosophers of religion and theologians, artists and art theoreticians, historians of science, linguists, sociologists, engineers, medical workers, and first-class students from the University of Zagreb. On the trail and in the spirit of Einstein's statement that "All religions, arts, and sciences are branches of the same tree" (Einstein, 1937). The 9 selected papers that follow in the thematic section of this issue of Synthesis Philosophica represent the characteristic core that portrays the aforementioned character, insights and results of the symposium and its position in the development of modern philosophical currents in the world and Croatia.

* * *

Most papers can be brought together around the principal thematic axis of the symposium on the 100th anniversary of Einstein's theory of relativity: the legacy of the Special theory of relativity and its modern philosophical and scientific conceptions. This issue brings 6 papers tackling Einstein's Legacy in Physics and the Philosophy of Time and Space, as well as generalisations and/or thought experiments beyond the theory of relativity. The papers discuss the postulates, both the physical and philosophical conceptions of the relativistic space-time in the Special theory of relativity, its applications in the other branches of physics, and classical theories of space and time in the philosophy of nature (Einstein, Poincaré, Planck, Gödel, Casirrer, Euclid, Newton, Kepler, Petrić, ..., contemporary physicists and philosophers). Dur-

ing the course of the symposium, Petrić's chief ontological concepts and his philosophical portrayal of the Solar universe from the late Renaissance were linked with Einstein's revolutions in physics and philosophy from 1905 and Einstein's scientific image of the universe for the first time. The contemporary approach to Petrić's phenomenological theory of the tides and its modern relativistic conception are intriguing. We can, thus, claim that the 14th Days of Frane Petrić, as well as no. 42 (2/2006) of *Synthesis Philosophica*, will enter chronology under the title *Albert Einstein and the Days of Frane Petrić*. The latter title is one of the original titles from the Croatian symposium dedicated to Einstein's jubilee year, much like "Albert Einstein – Chief Engineer of the Universe", the title of the scientific exhibition within the 22nd International Conference on the History of Science in Peking (ICHS, 24–30 July 2005).

During the preparations of this thematic section, Dr. Eugene E. Ryan (27 November 1926, Chicago, Illinois – 18 January 2006, Greenville, North Carolina), a distinguished American philosopher and researcher of Greek, Renaissance, Italian and, above all, Croatian philosophy, passed away. Owing to his merits in Croatian and world Petrićology in general, and his merits for the results of the symposium in particular, his paper "Reflections on Light and Time in the Philosophy of Franciscus Patricius and in the 1905 Paper of Albert Einstein The Electrodynamics of Moving Bodies" has been selected as the opening article in no. 42 (2/2006) of *Synthesis Philosophica* and the symposium's Collected Papers.

The second most important axis of the thematic section, which, however, does not count as many papers as the first, reflects on Einstein's views of God, religion and ethics impacting fundamentally the development of modern scientific research, the relations between religion and science, and everyday politics. The valuable paper we bring embraces an entire range of Einstein's views – from his earliest days in Bern to his American phase in Princeton – providing, for the first time, a coherent interpretation of Einstein's thoughts on religion, God and morality. Today, particularly around 2005, the year that marks the 100th jubilee of Einstein's extraordinary discoveries made in 1905, interest in Einstein's ethics has been growing. The famed Russell-Einstein Manifesto from 1955 was signed, besides Einstein and Russell, by nine more scientists, seven of whom are Nobel Prize laureates. Thus, 2005 also marks half a century of the Manifest, a unique ethical reflection and warning of the total ruin of mankind in case of a possible nuclear war on Earth.

The third thematic axis of selected papers pertains to the reception of Einstein's theory of relativity in cultures of the world. It brings 2 extraordinarily valuable papers, which bring forth new discoveries about the unusual experiences in the reception (i.e. translation and publication) of Einstein's works in China and Mexico.

* * *

The Theory of Relativity and Philosophy symposium was adorned by sine ira et studio discussions, guided by Einstein's manner of thinking and his scientific revolutions in physics, as well as by Einstein's perception of the world and man's role in it, and in full accord with Einstein's famous claim that "the eternal mystery of the world is its comprehensibility... The fact that it is comprehensible is a miracle" (Einstein, March 1936). The *Theory of Relativity and Philosophy* symposium within the 14th Days of Frane Petrić, organised by the Croatian Philosophical Society, judged Einstein's year of 1905 unprec-

edented in the history of human knowledge and culture, as did the other great world conferences in 2005. In 1905 Einstein had an independent, obstinate, free and distant perception of time, space, particles of light, energy and matter, which are today interpreted not only as conceptual revolutions in science, but also as the foundations of modern technologies and a scientific picture of the universe.

It is certain that the Cres symposium – owing to the insights and papers published in this issue of Synthesis Philosophica – places Croatia and Cres on the world map of those towns and countries that celebrated the 100th anniversary of Einstein's extraordinary and unrepeatable year in an impressive philosophical, scientific and cultural fashion.

Tomislav Petković

Tomislav Petković

Joint Editor of "Theory of Relativity and Philosophy"