

PHYSICS AND ONTOLOGY

A Tribute to Robert Brout

XIII INTERNATIONAL ONTOLOGY CONGRESS

SAN SEBASTIAN-BARCELONA, 2nd-9th OCTOBER 2018

Under the Honorary Presidency of François Englert, Nobel Prize of Physics

International Scientific Committee: A. Aspect (Paris); P. Aubenque (Paris);

F.J. Ayala (California); J. Bouveresse (Paris); †E. Chillida (San Sebastián);

A. Grünbaum (Pittsburgh); †W. Lamb (Arizona); T. Marco (Madrid); U. Moulines (München); †I. Prigogine (Bruxelles); †H. Putnam (Harvard); C. Rovelli (Marseille).

Coordinator: V. Gómez Pin (Barcelona).

Since the first conference took place back in 1993, the aim of the International Ontology Congress, of which most of the conferences have been held under the auspices of UNESCO, has been to breathe new life into the great topics of Greek philosophy, examining them from a contemporary perspective, namely, using the tools provided by contemporary science. These problems keep being brought up constantly, either because of the emergence of new scientific data or because of the irruption of new philosophic perspectives.

It is obvious that the philosophical and ontological reflection about nature, what was in other times known as natural philosophy, cannot take place without the support of the “natural science of our times”, in Heisenberg's words. It is well known that in the first twenty-five years of the XX century, experimental facts showed that the classical picture of nature was not completely justified in the realm of the microscopic. This was not the consequence of a philosophical whim, but it was imposed on the scientific community by the progressive accumulation of facts impossible to accommodate inside the previous picture of nature.

The main ontological implications of the new discipline were shown at the 1927 Solvay conference. A.S. Eddington asserted later that, if it was confirmed, the collapse of Absolute Causality announced in Solvay by Heisenberg, Born and others would make of this meeting one of the crux moments of the scientific and philosophical thought. But, as the Royal Majesty in the verses of Shakespeare, Causality never dies alone: it sweeps along a whole set of entangled principles that, from Greek physikoi to Einstein, had been considered the very grounds of our representation of nature. From then (and in spite of new theoretical data and crucial experiments) we can say that many of the questions discussed in the Solvay conference remain open and nourish in our days a fascinating debate. We hope to be able to discuss about these implications as well as to create new avenues for discussion at the first main section we are proposing for the XIII International Ontology Congress to be held in San Sebastián, from the 2nd to the 6th of October 2018: **Since “Solvay 1927”: Nature and Quantum Physics (state of the art).**

But it has not been the first time that philosophical problems rise in the history of Physics. In fact, the first West physicists, the thinkers of the marina cities of Ionia and their successors, were already confronted to deep questionings, which led to the advent of meta-physics, understood as the fate of Physics itself. This is why in 1948, Nobel Prize winner Erwin Schrödinger interrupted a course at Trinity College in Dublin arguing that, before continuing to work on physics, it was necessary for

him to know the meaning of the word *Physis*. As he greatly admired the Greek intuition of scientific view, Schrödinger seemed to think that returning to the roots was the best way of staying faithful to the spirit of science. Then, let's turn our attention to those roots, asking nevertheless if others civilizations were already developing an embryonic conception of nowadays physics. The International Ontology Congress maintains deep reliance on the roots, the foundations of current science and this confidence has been the inspiration for our second main section also to be held in San Sebastian, from the 2nd to the 6th of October 2018: **Back to Ionia: the conception of *Physis* that makes Physics possible.**

SOME CONFIRMED SPEAKERS

OPENING LECTURE : François Englert, Nobel Prize of Physics (Université Libre de Bruxelles)

Anouk Barberousse (Université Paris-Sorbonne)
Alberto Bernabé (Universidad Complutense de Madrid)
Tomás Calvo (Universidad Complutense de Madrid)
Francesc Casadesús (Universitat de les Illes Balears)
Joseph Dauben (CUNY)
Pedro M. Echenique (Donostia International Physics Center)
Carl Hofer (Universitat Autònoma de Barcelona)
James G. Lennox (University of Pittsburg)
Tim Maudlin (New York University)
Gérard Naddaf (York University)
Carlo Rovelli (Aix-Marseille Université)
Juha Saatsi (University of Leeds)
Luca Scarantino (FISP)
Demetra Sfendoni-Mentzou (Aristotle University of Thessaloniki)
Javier Tejada (Universitat de Barcelona)
Francis Wolff (École Normale Supérieure)
Yao Xinzhong (Renmin University)

SECTIONS IN SAN SEBASTIAN (2-6 OCTOBER 2018) at the UNIVERSITY OF THE BASQUE COUNTRY, PHILOSOPHY DEPARTMENT:

1. Since "Solvay 1927": Nature and Quantum Physics (state of the art).
2. Back to Ionia: the conception of *Physis* that makes Physics possible.

SPECIAL SESSION IN BARCELONA (9 OCTOBER 2018) at the AUTONOMOUS UNIVERSITY OF BARCELONA, IN COOPERATION WITH 'CASA ASIA' and 'INSTITUTO CONFUCIO':

The Roots of Science and Philosophy in China: State of the Art.

DEBATE IN A CORUÑA (18 OCTOBER 2018) IN COOPERATION WITH 'FUNDACIÓN PAIDEIA':

Pedro Miguel Echenique and Javier Echeverría will debate on: "Ciencia: Educación y Belleza"

SECCIONES EN SAN SEBASTIAN (2-6 OCTUBRE 2018) en la UNIVERSIDAD DEL PAÍS VASCO, DEPARTAMENTO DE FILOSOFÍA:

1. Desde "Solvay 1927": Naturaleza y Física Cuántica (estado de la cuestión).
2. Retorno a Jonia: la concepción de Physis que hace posible la Física.

* Aunque la XIII edición del Congreso Internacional de Ontología dará prioridad a las secciones mencionadas anteriormente, los artículos centrados en el desarrollo del concepto de naturaleza también serán bienvenidas comunicaciones relativas a temas análogos, por ejemplo, "el concepto de naturaleza en la Edad Media".

Las comunicaciones serán presentadas exclusivamente en San Sebastián.

SESIÓN ESPECIAL EN BARCELONA (9 DE OCTUBRE DE 2018) EN COOPERACIÓN CON 'CASA ASIA' e 'INSTITUTO CONFUCIO':

Las raíces de la ciencia y la filosofía en China: estado de la cuestión.

DEBATE EN A CORUÑA (18 DE OCTUBRE DE 2018) EN COOPERACIÓN CON 'FUNDACIÓN PAIDEIA':

Pedro Miguel Echenique y Javier Echeverría debatirán sobre: "Ciencia: Educación y Belleza"

WWW.ONTOLOGIA.INFO

Wojcik
⊖

UNDER THE PATRONAGE OF:



United Nations
Educational, Scientific and
Cultural Organization

UNDER THE AUSPICES OF:



FISP

Fédération Internationale des Sociétés de Philosophie
International Federation of Philosophical Societies

ORGANIZERS:



Universidad del País Vasco
Euskal Herriko Unibertsitatea
The University of the Basque Country



Universitat Autònoma
de Barcelona
Departament de Filosofia

