FINO PhD Program in Philosophy

Epistemology curriculum

A.Y. 2020-2021 /cycle 36

The course is open to all curricula, cycles and all PhD students and is eligible by second-year students of the Epistemological curriculum in order to earn part of their free 10 credits

Title *Physical Nature of Space/Time*

Course Description

The Seminar on the physical nature of space and time is intended for philosophers to help them to connect philosophical problems with the current state of scientific research in physics. In the first three lectures the teacher will introduce students to the general topic of the relation between space-time and physical reality, discussing the claim that space and time are relational and presenting the basic idea of time and relativity. After presenting the conception of the block universe, students will be introduced to the main problems of time and quantum mechanics and space and quantum mechanics. The course wll conclude with the topic of how to understand relativity today and the problem of the arrow of time.

Course organization

The course is organized in eight lectures, followed by discussion, on different aspects of contemporary views on space-time. Students are strongly suggested to read Julian Barbour, *The End of Time: The Next Revolution in Physics,* Oxford Univ. Press (2001). Participation to the lectures will be necessary (a lecture presupposes the knowledge of the previous one), but more expert students might choose individual lectures.

Teacher

Prof. Nino Zanghì, member of the FINO board of teachers and expert both in physics and in the philosophy of physics.

Duration and Credits

The duration is 24 hours, 12 credits

Teachig period

Fall 2020

Requirements

Students are requested to read the book in advance in order to pose reasonable questions and interact in the discussion with some previous knowledge of the topic.