

Physics and Philosophy of the Future: the Flow of Time between Physics and Metaphysics

Report of Contributions

Contribution ID: 1

Type: **not specified**

On the Nature of the Future

Thursday, 11 July 2019 14:30 (45 minutes)

The aim of this talk is to offer a critical overview of the current philosophical debate in the philosophy of the future, stressing the close connections between physics and metaphysics. I will discuss linear and branching-time models, underlining their relations with the debate on tense realism, that is, the debate about whether the flow of time is a genuine feature of reality.

Presenter: IAQUINTO, Samuele (Milano Univ.)

Contribution ID: 2

Type: **not specified**

Time Travels between Physics and Philosophy

Thursday, 11 July 2019 15:15 (45 minutes)

This talk is devoted to the main philosophical questions on time travel. It is usually held that the past cannot be changed. But what about the future? I will argue that the answer crucially depends on the hypothesis that reality contains a further temporal dimension, the so-called *hypertime*.

Presenter: TORRENGO, Giuliano (Milano Univ.)

Contribution ID: 3

Type: **not specified**

Time from Classical Relativistic Physics toward Quantum Gravity

Thursday, 11 July 2019 16:30 (1 hour)

I survey briefly the main lessons about the nature of physical time from (special and general) relativistic physics. They amount to a progressive dismissal of commonsensical assumptions about time and a difficult learning process about what are its real physical features. I then outline how the search for a quantum theory of gravity and spacetime is challenging, even more, our understanding of the spatiotemporal aspects of the world, and suggests a more radical, complete disappearance of time (and space) from the fundamental structure of the universe. The conceptual challenges of this radical disappearance of time will be emphasized, alongside the physical ones.

Presenter: ORITI, Daniele (Max Planck Institute for Gravitational Physics (Albert Einstein Institute))

Contribution ID: 4

Type: **not specified**

Discussion

Thursday, 11 July 2019 17:30 (1 hour)