

THEORY LECTURES SERIES: An Introduction to Quantum Metaphysics

HIPPOLYTE DOURDENT

October 03, 2023 to October 31, 2023

10:00 to 12:00

Blue Lecture Room, Seminar Room and online (Zoom)

Quantum theory is *½strange½*. While physics usually aims to describe the world and to dissolve its strangeness, or at least to familiarize ourselves with it, quantum theory seems desperately silent when it comes to extract meaning from its equations, even though its mathematical grounds have been fixed almost a century ago. As pointed out by David Mermin, *½Quantum theory is the most useful and powerful theory physicists have ever devised. Yet today, [...] disagreement about the meaning of the theory is stronger than ever. New interpretations appear every day. None ever disappear.½* This never ending set of interpretations is often referred to as *½a map of madness½*, and is the playground of quantum metaphysics - what comes after/beyond quantum theory. This series of lectures on quantum foundations aims to provide you with an up-to-date exploration of this sprawling *½map½*, introducing pivotal no-go theorems (Bell, Kochen-Specker, PBR, Local Friendliness) that delineate its frontiers, as well as equipping you with essential tools to navigate through these numerous meta-quantum propositions, spanning from de Broglie-Bohm theory and Everett's many worlds to Relational Quantum Mechanics and QBism... and beyond. (Prerequisite knowledge : Standard quantum mechanics). The lectures will be held on **October 3, 10, 31** and in the **SMR** on **October 24** from **10:00 to 12:00**.

Participation is open to all ICFOnians

[We strongly encourage you to attend the lectures in person.](#)

In case you are unable to attend in person, please, use the following link:

Meeting ID: 832 6134 5290

Passcode: 480299

Hosted by: Academic Affairs