



SPLIT SUMMER SCHOOL STSS2017

COURSE: SPACE AND TIME IN PHYSICS AND PHILOSOPHY

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Web page: <http://www.unist.hr/split-summer-school-2017>

Main topics:

- Critical assessment of the concepts of space and time in classical and modern physics
- Epistemological and methodological problems of science
- 4-day course
- Lectures, seminars and workshops
- Philosophy
- Classical electrodynamics, optics and thermodynamics
- Classical mechanics
- Theory of relativity
- Quantum mechanics and electrodynamics
- Quantum theory of gravitation



Important dates:

Course dates: 04/07/2017 – 07/07/2017

Deadline for application: 15/06/2017

Payment due by: 20/06/2017

Confirmation of the course: 20/06/2017

Price of the course: 100 € (tax included)

Programme plan:

Day 1

- Theories of Space and Time from Aristotle to Einstein (Part I)
- Space and Time in Classical Physics and Relativity
- A Common Falacy in QM: About Delayed Choice Experiment and Retrocausality (Part I)
- Shape Space Quantum Physics
- Space and Time in Modern Cosmology

Day 2

- Theories of Space and Time from Aristotle to Einstein (Part II)
- A Common Falacy in QM: About Delayed Choice Experiment and Retrocausality (Part II)
- Does Non-Relativistic Quantum Theory Exist?
- Universe or Multiverse?

Day 3

- On Evaporating Black Holes
- The Disappearance of Space and Time in Quantum Theories of Gravity
- Numerical Modelling in Magnetohydrodynamics and Quantum Mechanics

Day 4

- What Becomes of a Casual Set?
- What We Know and What We Want to Know About Quantum Gravity
- Emergent Spacetime in the Laboratory

Programme lecturers:

Dr. sc. Vishnya Maudlin, New York University
Prof. dr. sc. Franjo Sokolić, University of Split, Faculty of Science
Prof. dr. sc. Tomislav Živković, Institute Ruđer Bošković
Dr. sc. Deflet Dür
Dr. sc. Neven Bilić, Institute Ruđer Bošković

Dr. sc. Vishnya Maudlin, New York University
Prof. dr. sc. Tomislav Živković, Institute Ruđer Bošković
Prof. dr. sc. Tim Maudlin, New York University
Dr. sc. Marko Uršič

Prof. dr. sc. Tim Maudlin, New York University
Prof. dr. sc. Christian Wüthrich, Universite de Geneve
Prof. dr. sc. Dragan Poljak, FESB Split

Prof. dr. sc. Christian Wüthrich, Universite de Geneve
Dr. sc. Ilya Shapiro
Dr. sc. Neven Bilić, Institute Ruđer Bošković