

# Ruder Bošković Institute Division of Theoretical Physics

## TWINNING LECTURES

# THEORY AND PHENOMENOLOGY OF MASSIVE NEUTRINOS AND CHARGED LEPTON FLAVOR VIOLATION

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### LECTURE 1

Thursday, May 4, 10 a.m.

### LECTURE 2

Friday, May 5, 10 a.m.

Venue: Lecture hall, Ivan Supek Wing

### ABSTRACT:

These lectures are focused on various theoretical and phenomenological aspects of neutrino physics and charged lepton flavor violation. The first lecture will provide an introduction to neutrino physics and the need to call for New Physics scenarios as well as a discussion of some well-motivated neutrino mass generation mechanisms and their potential testability. The second lecture will be devoted to charged lepton flavor violating observables (in high and low energy experiments) and their roles in discriminating among the several New Physics scenarios. As an example, we address the minimal extension of the Standard Model with sterile fermions.



H2020 CSA Twinning  
Grant No: 692194

2017.

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This lecture series is delivered as part of the RBI-T-WINNING project which has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 692194.

