



UNIVERSITÀ
degli STUDI
di CATANIA

DIPARTIMENTO DI FISICA E ASTRONOMIA

“ETTORE MAJORANA”

DOTTORATO DI RICERCA IN FISICA

CICLO XL A.A. 2024/2025

TITLE

Neutrino Physics

CFU 3

Teaching staff

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Reception hours: Tuesday 17:00

Program of the course:

Introduction

Fermi theory of beta decay

Neutrino experimental evidences

Solar Neutrinos

Neutrino oscillations and neutrino properties

Neutrino Mass Ordering

Neutrino Mass and Zero Neutrino Double Beta Decay

CP violation in Leptonic Sector

Sterile Neutrinos Neutrino

Atmospheric Neutrinos

Cosmic neutrinos

Neutrinos in Multimessenger Astronomy

Bibliography:

Scientific paper and slides provided by the teacher