Tuesday June 27th, 2023 – at 11.00 a.m.

Seminar Room "1" – Povo0, Via Sommarive 14

**SEMINAR FOR ADMISSION TO THE SECOND YEAR
PHD PROGRAMME IN MATHEMATICS**

Riccardo Marchesin

PhD Student in Mathematics

Boolean Algebras

Abstract

Originally created by George Boole in the mid-19th Century as a tool for mathematically analyzing logic, Boolean Algebras have since developed into a modern mathematical discipline, with ties to other fields like set theory, topology, and measure theory.

This talk will first introduce the concept of Boolean Algebra and some related notions (filters, ideals and ultrafilters). Then, we will prove Stone's representation theorem, which classifies Boolean Algebras up to isomorphisms.

Finally, we will discuss some properties (saturation, κ-distributivity) that are related to complete Boolean Algebras.

Contact person: Stefano Baratella

The seminar corresponds to the final exam of "Set Theory", a planned course within Riccardo Marchesin's first year PHD study programme