



UNIVERSITÀ
DI TRENTO

Dipartimento di
Matematica

DOTTORATO



Friday 22 July 2022 – at 10.00 am

Seminar Room “-1” – Department of Mathematics

The seminar will take place in presence and online, through the ZOOM platform.
To get the access codes please contact the secretary office

Chiara Spadafora

PhD Student in Mathematics

The theory of Binary Quadratic Forms

Abstract:

The objective of this seminar is to give an introduction to the theory of binary quadratic forms, starting from basic notions, e.g. the discriminant of a form and forms equivalence. The representation problem and the minimum problem will be introduced and a first strategy to solve the representation problem will be discussed.

Although naive, this strategy gives rise to three important algorithmic problems:

- (i) how to construct all the forms with the same discriminant,
- (ii) how to decide whether two forms are equivalent,
- (iii) how to find the automorphism group of a form.

The subsequent part will be devoted to integral positive definite forms, problems (ii) and (iii) will be solved and a reduction algorithm together with a strategy to solve the representation problem will be presented.

Contact person: Giordano Santilli

CONTATTI

Staff di Dipartimento - Matematica
tel. 0461 281508-1625-1701-3786

phd.maths@unitn.it
www.maths.unitn.it