

INSALATE DI MATEMATICA



Dehn-gerous groups!

22/04/2026

Andreas Lorrain

Vrije Universiteit Brussel
& Università di
Milano-Bicocca

IN THIS TALK

In 1911 Max Dehn asked the following question: Given a group defined by generators and relations, is there an algorithm that can determine if a word represents the identity?

It turns out that this depends on the group. So, suppose that such an algorithm exists for your favourite group. How fast is it? Gromov defined a way to quantify this and called it the 'Dehn function'. One can see this Dehn function as a measure of some sort of complexity of the group.

In this talk we will explore some of the subtleties of this problem and consider a special set of groups: the Thompson groups F , T , and V .

Are they as complex as they look?

words: Geometric group theory, Dehn functions, Thompson groups

"Obvious" is the most dangerous word in mathematics.

(Eric Temple Bell)



[insalate.di.matematica](https://www.instagram.com/insalate.di.matematica)