



UNIVERSITÀ  
DEGLI STUDI  
DI PADOVA

## **ReMoLD - Representations, Motives and Langlands Duality**

Numerous advances impacting society, from basic science to consumer technology, are built on fundamental research in mathematics. Examples include non-Euclidean geometry (leading to general relativity, and then GPS navigation); number theory (leading to public-key cryptography, and then to secure online commerce); and topology (with applications in image recognition and medical diagnostics).

This doctoral network, ReMoLD: Representations, Motives and Langlands Duality, will advance fundamental research in three highly active fields of mathematics: representation theory, algebraic geometry and number theory. Specifically, ReMoLD is at the forefront of research in geometric representation theory and the Langlands program using recent mathematical innovations from the field of motives.

ReMoLD will build a European network of doctoral candidates that excels in fundamental research in mathematics, implements innovative training formats and partners with a leading European quantum computing company, in order to form a group of scientists ready to apply to highly competitive positions in academia and industry.

**Coordinator:** Università degli Studi di Padova

**UNIPD Supervisor:** Jacob Scholbach

**Department:** Department of Mathematics

**Total Contribution:** € 518 875,20

**Project Duration in months:** 48

**Find out more:** <https://cordis.europa.eu/projects/en>