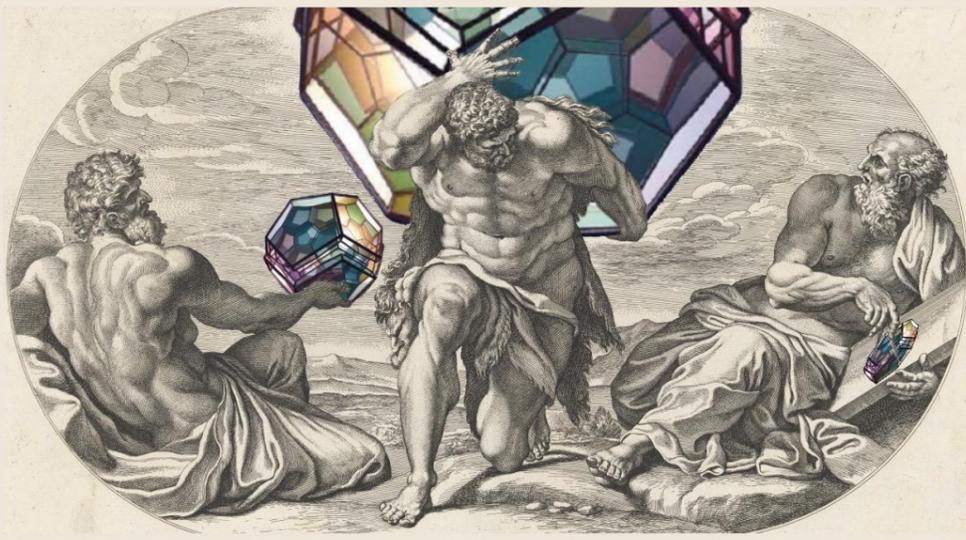


14 - 16 - 17 DECEMBER 2021

11 am-4.15 pm

ONSITE: Sala di rappresentanza, Dipartimento di Matematica "Federigo Enriques" (UNIMI), Via Saldini 50, 20133, Milano

ONLINE: <https://us02web.zoom.us/j/2463216296>



PhD Days (PhD²ays) is a series of events started in 2015 with PhD students as main characters.

They have a twofold aim: to increase the mathematical knowledge of the students of the Math track, and to inform about recent research topics in Mathematics. In fact, PhD²ays are not only a way to tell other PhD students about one's own work, but also a way to introduce late Bachelor and Master students to the PhD life and help them discover what a PhD student actually works on.

PhD²ays aim to be accessible to a broad range of students, who often do not share the same mathematical background.

Participation is free and open to everyone's interested, in particular undergraduate and graduate students.

Tuesday 14 December

11.00: p-adic modular forms
Ananyo Kazi (UniMi)

KEYWORDS: modular forms, p-adic interpolation

11.45: Shioda-Inose structures
Benedetta Piroddi (UniMi)

KEYWORDS: abelian surfaces, K3 surfaces, finite coverings, integral lattices

14.00: To infinity and beyond: the Buzz Lightyear's dream
Matteo Doni (UniMi)

KEYWORDS: ∞ -category theory, n-category theory, $(\infty, 1)$ -category theory

14.45: A no hair theorem in General Relativity
Beniamino Spinelli (UniMi)

KEYWORDS: applications of the maximum principle, Lorentzian geometry

15.30: Quantitative stability for overdetermined problems with a nonlocal operator
Luigi Pollastro (UniMi)

KEYWORDS: fractional laplacian, Serin problems, moving planes, maximum principles, Hernack inequality

Thursday 16 December

11.00: Kähler geometry of holomorphic submersions
Annamaria Ortù (SISSA)

KEYWORDS: special Kähler metrics, smooth fibration, deformations of maps

11.45: Obstructions to rational points on varieties
Margherita Pagano (Leiden)

KEYWORDS: rational solution to polynomial equations, reduction modulo prime numbers, p-adic number

14.00: Introduction to essential dimension
Bianca Gouthier (Bordeaux)

KEYWORDS: generic polynomial, transcendence degree, Galois theory, symmetric group

14.45: Automatic proofs (for complex systems)
Gianluca Redondi (FBK-UniTn)

KEYWORDS: automated theorem proving, model checking, satisfiability modulo theory

15.30: Context, Judgement, Deduction: categories as syntax
Greta Coraglia (UniGe)

KEYWORDS: category theory, type theory, theoretical computer science, proof theory, deductive systems

Friday 17 December

11.00: A brief tour in nodal geometry
Stefano Decio (NTNU)

KEYWORDS: Laplace eigenfunctions, zero sets, elliptic PDEs, quantitative unique continuation

11.45: The Calderón-Zygmund inequality on Riemannian manifolds
Ludovico Marini (UniMiB)

KEYWORDS: global regularity estimates, Sobolev spaces on manifolds, singular metric spaces, positive sectional curvature

14.00: An overview on p-adic L-functions
Luca Marannino (Duisburg-Essen)

KEYWORDS: L-functions, BSD conjecture, p-adic analysis, triple product

14.45: What is Condensed Mathematics?
Marco Artusa (Bordeaux)

KEYWORDS: categories, topological spaces, topoi, abelian categories, cohomology

15.30: Derived categories and Fourier-Mukai functors
Lorenzo Dasti (UniMi)

KEYWORDS: dg enhancements, noncommutative algebraic geometry, higher category theory



Scan the QR code to find program, abstracts and further details on the website!

