UNIVERSITÀ DI PARMA

DIPARTIMENTO DI SCIENZE MATEMATICHE, FISICHE E INFORMATICHE

COLLOQUIUM DI DIPARTIMENTO

Prof. María Angélica Cueto

Associate Professor, The Ohio State University

Mercoledì 18 febbraio 2026 - ore **15.30**

Aula A - Plesso di Matematica

Counting geometric objects in the tropics

Tropical Geometry has been the subject of great amount of activity over the last two decades sparked by its application to enumerative geometry. Loosely speaking, it can be described as a piecewise-linear version of algebraic geometry. It is based on tropical algebra, where the sum of two numbers is their maximum and the product is their sum. This turns polynomials into piecewise-linear functions, and their zero sets into polyhedral complexes. These tropical varieties retain a surprising amount of geometric information about their classical counterparts.

In this talk, I will give a gentle introduction to the subject and will illustrate its power for counting geometric objects through combinatorics with a concrete classical example that goes back to Pluecker: the 28 bitangent lines to smooth plane quartic curves. This is based on joint work with Hannah Markwig.

Organizzatore: Prof. Adriano Tomassini