Colloqui della Classe di Scienze Anno Accademico 2017/2018

Sala Azzurra | Palazzo della Carovana Scuola Normale Superiore Piazza dei Cavalieri, 7 - PISA

15 NOVEMBRE 2017 ore 15.00

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Enumeration in geometry

ABSTRACT:

Enumeration of geometric objects verifying some specific properties is an old and venerable subject. In this talk I will start by briefly reviewing some of its history and problems. In the last decades, enumerative geometry saw the flourishing of new problems and underwent a tremendous change of perspective and a spectacular progress, with the introduction of extremely refined new mathematical ideas and tools which launched unexpected bridges between different parts of mathematics. This has been due also, sometimes mainly, to the input of questions coming from physics. New insights have also been provided by discretization methods in algebraic geometry introduced by the so-called tropical mathematics, which, by the way, has quite interesting applications in phylogenetics. Being impossible to present all this material in a one hour talk, I will limit myself to give general information on some aspects of these topics, the ones which are closer to my own research and (limited) knowledge.

