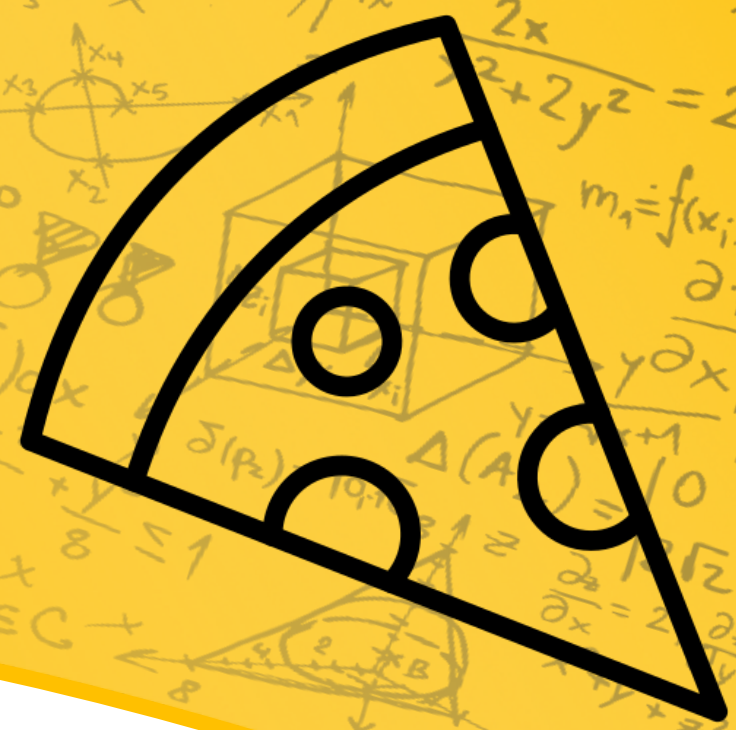
הטכניון
מכון טכנולוגי לישראל

הפקולטה למתמטיקה

The Faculty of Mathematics
Invites you to the

Pizza seminar



Time & Place

Wednesday, July 15, 13:30
8th floor lounge, Amado bldg.

Title

Rational Portraits of Quadratic Polynomials

Speaker

Adi Zimerman

Abstract

Arithmetic dynamics studies arithmetic questions arising from the iteration of maps. In this expository talk, I will introduce the subject by surveying some known results for the family

$$f_c(x) = x^2 + c, \qquad c \in Q.$$

The guiding question will be: what finite rational orbit structures can occur for these maps? I will begin with periodic and preperiodic points, and explain how they define directed graphs whose isomorphism classes are called portraits. Along the way, I will discuss Northcott's theorem, the Uniform Boundedness Conjecture, and the connection with rational points on algebraic curves.