

# The Trivial Notions Seminar Proudly Announces 

## Apollonian circle packings

A talk by<br>Giulio Tiozzo


#### Abstract

How many circles can you see in this picture? Even better, how many circles of a given size are there? (In order to help you, I plotted the inverses of the radii. It turns out they are all integers. How many of them are primes?) Configurations of mutually tangent circles go as far back as Descartes, and even Apollonius. We will see how elementary counting questions such as the ones just mentioned admit a beautiful dynamical interpretation in terms of Kleinian groups, hyperbolic 3space and equidistribution of horospheres. No previous knowledge of any of these words is required.


## Thursday March $8^{\text {th }}$, at 2:00 pm Science Center 310

