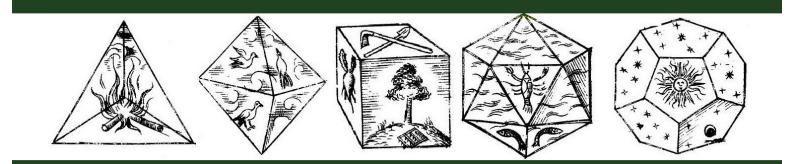# John Baez al DIMA

21 giugno 2017, aula 706

ore 11: seminario per tutti gli studenti
Tales of the Dodecahedron:
from Pythagoras through Plato to Poincaré

ABSTRACT: The dodecahedron is a beautiful shape made of 12 regular pentagons. It doesn't occur in nature; it was invented by the Pythagoreans, and we first read of it in a text written by Plato. We shall see some of its many amazing properties: its relation to the Golden Ratio, its rotational symmetries — and best of all, how to use it to create a regular solid in 4 dimensions! Poincaré exploited this to invent a 3-dimensional space that disproved a conjecture he made. This led him to an improved version of his conjecture, which in 2003 proved by the reclusive Russian mathematician Grigori Perelman.

Rinfresco

ore 14: seminario
Applied Category Theory

ABSTRACT: Nature and the world of human technology are full of networks. People like to draw diagrams of networks: flow charts, electrical circuit diagrams, signal-flow graphs, Bayesian networks, Feynman diagrams and the like. Mathematically minded people know that in principle these diagrams fit into a common framework: category theory. But we are still far from a unified theory of networks.

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