Aristotle's Philosophy of Mathematics

Donald Gillies

University College London

Science & Philosophy Colloquia

room x – villa mirafiori – via Carlo Fea 2 – rome
16 Febrary 2015 – 15:30-17:30

open to the pubblic

organisation & info:

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SAPIENZA
UNIVERSITÀ DI ROMA

Programme

monday 16 febbraio 2015

15:30-15:35 **Opening** Carlo Cellucci *Roma Sapienza*

15:35-16:20 **Aristotle's Philosophy of Mathematics**
Donald Gillies *University College London*

16:35-17:30 **Debate**

Outline

The talk gives an exposition of Aristotle's philosophy of mathematics. It is claimed that this is based on two postulates. The first is the embodiment postulate, which states that mathematical objects exist not in a separate world, but embodied in the material world. The second is that infinity is always potential and never actual. It is argued that Aristotle's philosophy gave an adequate account of ancient Greek mathematics. Then, at the end of the talk, there is a brief consideration of whether, and to what extent, Aristotle's philosophy of mathematics is applicable to contemporary mathematics. The second postulate is no longer true, since modern mathematics assumes the actual infinite; but the first postulate, in a modified form, might still be defensible for contemporary mathematical theories such as axiomatic set theory.