Zeno’s Paradoxes: A Cardinal Problem

Karin Verelst

FUND-DWIS
Vrije Universiteit Brussel
Pleinlaan 2, B-1050 Brussels
kverelst@vub.ac.be

Although no one has ever touched Zeno without refuting him (Whitehead), it will be the aim of this contribution to show that, whatever it was that was refuted, it was certainly not Zeno. We demonstrate that upon direct analysis of the Greek sources [3], an underlying structure common to both the Paradoxes of Plurality and the Paradoxes of Motion exists. This structure bears on a correct — Zenonian — interpretation of a simultaneous “division through and through” [1]. Essentially, Zeno’s divisional procedure implies the construction of a well-ordered continuum. A mathematical representation will be set up that catches this common structure, based on the notion of a divisional tree [4], and expressed in the language of domain theory [2]. This representation will prove to be aequivalent to Cantor’s Continuum Hypothesis [6, 5].

References


