

# Contents

Michalis Sialaros

**Introduction: Revolutions in Greek Mathematics — 1**

Sabetai Unguru

**Counter-Revolutions in Mathematics — 17**

Jean Christianidis

**Diophantus and Premodern Algebra: New Light on an Old Image — 35**

Courtney Roby

**Geometer, in a Landscape: Embodied Mathematics in Hero's *Dioptra* — 67**

Michalis Sialaros

**How Much Does a Theorem Cost? — 89**

Claas Lattmann

**Diagrammatizing Mathematics: Some Remarks on a Revolutionary Aspect of Ancient Greek Mathematics — 107**

Fabio Acerbi

**Composition and Removal of Ratios in Geometric and Logistic Texts from the Hellenistic to the Byzantine Period — 131**

Henry Mendell

**Why Did the Greeks Develop Proportion Theory? A Conjecture — 189**

Geoff Lehman and Michael Weinman

**Recursive Knowledge Procedures Informing the Design of the Parthenon: One Instance of Continuity between Greek and Near Eastern Mathematical Practices — 235**

Jeffrey A. Oaks

**Diophantus, al-Karājī, and Quadratic Equations — 271**

Gabriele Galluzzo

**Substantiae sunt sicut numeri: Aristotle on the Structure of Numbers — 295**

Vassilis Karasmanis

**The Axiomatization of Mathematics and Plato's Conception of Knowledge in the *Meno* and the *Republic* — 319**

Stelios Negrepontis

**The Anthyphairetic Revolutions of the Platonic Ideas — 335**

**Name index — 383**

**General index — 387**