

1. Record Nr.	UNINA9910794560103321
Titolo	Arguing with Numbers : The Intersections of Rhetoric and Mathematics // edited by James Wynn and G. Mitchell Reyes
Pubbl/distr/stampa	University Park, Pa. : , : Pennsylvania State University Press, , 2021 ©2021
ISBN	0-271-08923-7
Descrizione fisica	1 online resource , 1 online resource
Collana	RSA Series in Transdisciplinary Rhetoric ; ; v.16
Disciplina	303.48/3
Soggetti	Mathematics - Social aspects Rhetoric - Social aspects Essays.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Frontmatter -- Contents -- Acknowledgments -- Introduction -- Part 1 Framing the Intersections -- 1 From Division to Multiplication: Uncovering the Relationship Between Mathematics and Rhetoric Through Transdisciplinary Scholarship -- 2 In What Ways Shall We Describe Mathematics as Rhetorical? -- Part 2: Rhetoric, Mathematics, and Public Culture -- 3 The Mathematization of the Invisible Hand: Rhetorical Energy and the Crafting of Economic Spontaneity -- 4 The Horizons of Judgment in Mathematical Discourse: Copulas, Economics, and Subprime Mortgages -- 5 The Ourang-Outang in the Rue Morgue: Charles Peirce, Edgar Allan Poe, and the Rhetoric of Diagrams in Detective Fiction -- Part 3: Mathematical Argument and Rhetorical Invention -- 6 Rhetoric and Mathematics in the Saturnian Account of Atomic Spectra -- 7 The New Mathematical Arts of Argument: Naturalistic Images and Geometric Diagrams -- Part 4: Mathematical Presentations: Experts and Lay Audiences -- 8 Accommodating Young Women: Addressing the Gender Gap in Mathematics with Female- Centered Epideictic -- 9 Turning Principles of Action into Practice: Examining the National Council of Teachers of Mathematics' Reform Rhetoric -- Contributors -- Index
Sommario/riassunto	As discrete fields of inquiry, rhetoric and mathematics have long been

considered antithetical to each other. That is, if mathematics explains or describes the phenomena it studies with certainty, persuasion is not needed. This volume calls into question the view that mathematics is free of rhetoric. Through nine studies of the intersections between these two disciplines, *Arguing with Numbers* shows that mathematics is in fact deeply rhetorical. Using rhetoric as a lens to analyze mathematically based arguments in public policy, political and economic theory, and even literature, the essays in this volume reveal how mathematics influences the values and beliefs with which we assess the world and make decisions and how our worldviews influence the kinds of mathematical instruments we construct and accept. In addition, contributors examine how concepts of rhetoric-such as analogy and visuality-have been employed in mathematical and scientific reasoning, including in the theorems of mathematical physicists and the geometrical diagramming of natural scientists. Challenging academic orthodoxy, these scholars reject a math-equals-truth reduction in favor of a more constructivist theory of mathematics as dynamic, evolving, and powerfully persuasive. By bringing these disparate lines of inquiry into conversation with one another, *Arguing with Numbers* provides inspiration to students, established scholars, and anyone inside or outside rhetorical studies who might be interested in exploring the intersections between the two disciplines. In addition to the editors, the contributors to this volume are Catherine Chaput, Crystal Broch Colombini, Nathan Crick, Michael Dreher, Jeanne Fahnestock, Andrew C. Jones, Joseph Little, and Edward Schiappa.
