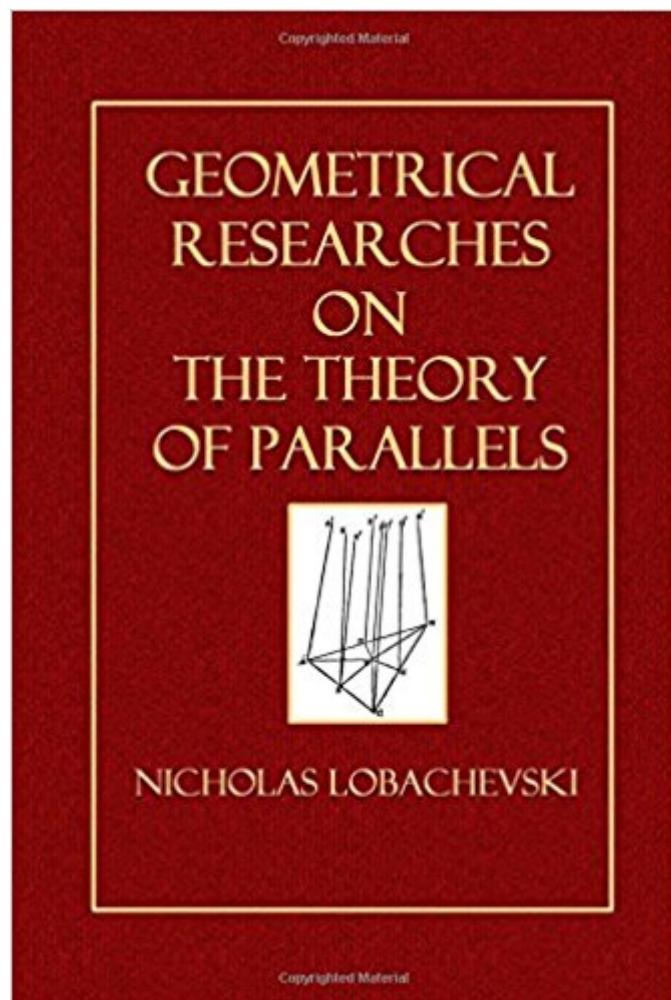# Geometrical Researches On The Theory Of Parallels

GEOMETRICAL
RESEARCHES
ON
THE THEORY
OF PARALLELS

NICHOLAS LOBACHEVSKI

Synopsis

From the TRANSLATOR'S PREFACE. LOBACHEVSKI was the first man ever to publish a non-Euclidean geometry. Of the immortal essay now first appearing in English Gauss said, "The author has treated the matter with a master-hand and in the true geometer's spirit. I think I ought to call your attention to this book, whose perusal cannot fail to give you the most vivid pleasure." Clifford says, "It is quite simple, merely Euclid without the vicious assumption, but the way things come out of one another is quite lovely." * * * "What Vesalius was to Galen, what Copernicus was to Ptolemy, that was Lobachevski to Euclid." Says Sylvester, "In Quaternions the example has been given of Algebra released from the yoke of the commutative principle of multiplication â " an emancipation somewhat akin to Lobachevski's of Geometry from Euclid's noted empirical axiom." Cayley says, "It is well known that Euclid's twelfth axiom, even in Playf air's form of it, has been considered as needing demonstration; and that Lobachevski constructed a perfectly consistent theory, where- in this axiom was assumed not to hold good, or say a system of non- Euclidean plane geometry. There is a like system of non-Euclidean solid geometry." GEORGE BRUCE HALSTED. 2407 San Marcos Street, Austin, Texas. * * * * From the TRANSLATOR'S INTRODUCTION. "Prove all things, hold fast that which is good," does not mean demonstrate everything. From nothing assumed, nothing can be proved. "Geometry without axioms," was a book which went through several editions, and still has historical value. But now a volume with such a title would, without opening it, be set down as simply the work of a paradoxer. The set of axioms far the most influential in the intellectual history of the world was put together in Egypt; but really it owed nothing to the Egyptian race, drew nothing from the boasted lore of Egypt's priests. The Papyrus of the Rhind, belonging to the British Museum, but given to the world by the erudition of a German Egyptologist, Eisenlohr, and a German historian of mathematics, Cantor, gives us more knowledge of the state of mathematics in ancient Egypt than all else previously accessible to the modern world. Its whole testimony con- firms with overwhelming force the position that Geometry as a science, strict and self-conscious deductive reasoning, was created by the subtle intellect of the same race whose bloom in art still overawes us in the Venus of Milo, the Apollo Belvidere, the Laocoon. In a geometry occur the most noted set of axioms, the geometry of Euclid, a pure Greek, professor at the University of Alexandria. Not only at its very birth did this typical product of the Greek genius assume sway as ruler in the pure sciences, not only does its first efflorescence carry us through the splendid days of Theon and Hypatia, but unlike the latter, fanatics cannot murder it; that dismal flood, the dark ages, cannot drown it. Like the phoenix of its native Egypt, it rises with the new birth of culture. An Anglo-Saxon, Adelard of Bath, finds it clothed in Arabic vestments in the land of the

Alhambra. Then clothed in Latin, it and the new-born printing press confer honor on each other. Finally back again in its original Greek, it is published first in queenly Basel, then in stately Oxford. The latest edition in Greek is from Leipsic's learned presses.

Book Information

Paperback: 50 pages

Publisher: CreateSpace Independent Publishing Platform (September 12, 2014)

Language: English

ISBN-10: 1502354659

ISBN-13: 978-1502354655

Product Dimensions: 6 x 0.1 x 9 inches

Shipping Weight: 4.5 ounces (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #2,281,931 in Books (See Top 100 in Books)   #89 inÂ Books > Science & Math > Mathematics > Geometry & Topology > Non-Euclidean Geometries   #93174 inÂ Books > Literature & Fiction > Literary

Download to continue reading...

Geometrical Researches on the Theory of Parallels Iso 1101:2012, Geometrical product specifications (Gps) - Geometrical tolerancing - Tolerances of form, orientation, location and run-out The Gilgamesh Epic and Old Testament Parallels (Phoenix Books) Parallels and Paradoxes: Explorations in Music and Society The Inventions, Researches and Writings of Nikola Tesla Naval Researches: Or a Candid Inquiry into the Conduct of Admirals Byron, Graves, Hood and Rodney, into the Actions Off Grenada, Chesapeak, ... of April, 1782 (American Revolutionary) Researches into the Origin of the Primitive Constellations of the Greeks, Phoenicians and Babylonians. Vol. II Inventions, Researches And Writings Of Nikola Tesla Handbook of Optics, Third Edition Volume I: Geometrical and Physical Optics, Polarized Light, Components and Instruments(set) ISO 8015:2011, Geometrical product specifications (GPS) - Fundamentals - Concepts, principles and rules Structural Geology: An Introduction to Geometrical Techniques 4th (fourth) Edition by Ragan, Donal M. published by Cambridge University Press (2009) Geometrical Vectors (Chicago Lectures in Physics) Geometrical Methods of Mathematical Physics Field Guide to Geometrical Optics (SPIE Vol. FG01) Database Design and Relational Theory: Normal Forms and All That Jazz (Theory in Practice) Narrative Theory Unbound: Queer and Feminist Interventions (THEORY INTERPRETATION NARRATIV) Queer Theory, Gender Theory: An Instant Primer Theory-Based

Treatment Planning for Marriage and Family Therapists: Integrating Theory and Practice (Marital, Couple, & Family Counseling) Legal Theory and the Legal Academy: Volume III (The Library of Essays in Contemporary Legal Theory) Customary International Law: A New Theory with Practical Applications (ASIL Studies in International Legal Theory)