Record Nr. UNINA9910822842903321 Autore Friedrichs K. O. **Titolo** From Pythagoras to Einstein / / by K. O. Friedrichs Washington, D.C., : Mathematical Association of America, 1965 Pubbl/distr/stampa **ISBN** 0-88385-931-9 Edizione [1st ed.] 1 online resource (vii, 88 pages): digital, PDF file(s) Descrizione fisica Anneli Lax New Mathematical Library;; no. 16 Collana Disciplina 516.83 Soggetti Pythagorean theorem **Dynamics** Relativity (Physics) Vector analysis Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Title from publisher's bibliographic system (viewed on 02 Oct 2015). Note generali The Pythagorean theorem -- Signed numbers -- Vectors --Nota di contenuto Components and coordinates. Spaces of higher dimension --Momentum and energy. Elastic impact -- Inelastic impact -- Space and time measurement in the special theory of relativity -- Momentum and energy in the special theory of relativity. Impact. The main thread running through this somewhat unorthodox approach Sommario/riassunto to the special theory of relativity is the Pythagorean theorem. It appears in its most elementary geometric form in the very beginning of this monograph. Then it reappears in algebraic garb, it is further modified and finally reinterpreted to play the role of one of the main characters in the special theory of relativity. The first four chapters are easily accessible to high school sophomores or juniors. The remaining part of the book may be a little difficult for students who never studied physics, although the author actually employs only the notion of impact and presupposes no background in physics. With the aid of the vector

geometry introduced earlier, he leads the reader from the impact

conservation laws to the famous formula e=mc^2.