

1. Record Nr.	UNINA9910791740103321
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Titolo	From Pythagoras to Einstein / / K.O. Friedrichs
Pubbl/distr/stampa	Washington : , : Mathematical Association of America, , 1965
ISBN	0-88385-931-9
Descrizione fisica	1 online resource (vii, 88 pages) : digital, PDF file(s)
Collana	Anneli Lax New Mathematical Library ; ; no. 16
Disciplina	516.83
Soggetti	Pythagorean theorem Dynamics Relativity (Physics) Vector analysis
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	The Pythagorean theorem -- Signed numbers -- Vectors -- 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.
Sommario/riassunto	The main thread running through this somewhat unorthodox approach 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 $e=mc^2$.