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Titolo	Chases and escapes [[electronic resource] ] : the mathematics of pursuit and evasion // Paul J. Nahin, with a new preface by the author
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ISBN	1-4008-4206-9
Edizione	[With a New preface by the author]
Descrizione fisica	1 online resource (285 p.)
Collana	Princeton puzzlers
Disciplina	519.3/2
Soggetti	Differential games Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"Third printing, and first paperback printing, with a new preface, for the Princeton Puzzlers series, 2012."
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Frontmatter -- Contents -- Preface to the Paperback Edition -- What You Need to Know to Read This Book (and How I Learned What I Needed to Know to Write It) -- Introduction -- Chapter 1. The Classic Pursuit Problem -- Chapter 2. Pursuit of (Mostly) Maneuvering Targets -- Chapter 3. Cyclic Pursuit -- Chapter 4. Seven Classic Evasion Problems -- Appendix A. Solution to the Challenge Problems of Section 1.1 -- Appendix B. Solutions to the Challenge Problems of Section 1.2 -- Appendix C. Solution to the Challenge Problem of Section 1.5 -- Appendix D. Solution to the Challenge Problem of Section 2.2 -- Appendix E. Solution to the Challenge Problem of Section 2.3 -- Appendix F. Solution to the Challenge Problem of Section 2.5 -- Appendix G. Solution to the Challenge Problem of Section 3.2 -- Appendix H. Solution to the Challenge Problem of Section 4.3 -- Appendix I. Solution to the Challenge Problem of Section 4.4 -- Appendix J. Solution to the Challenge Problem of Section 4.7 -- Appendix K. Guelman's Proof -- Notes -- Bibliography -- Acknowledgments -- Index -- Backmatter
Sommario/riassunto	We all played tag when we were kids. What most of us don't realize is that this simple chase game is in fact an application of pursuit theory, and that the same principles of games like tag, dodgeball, and hide-and-peek are also at play in military strategy, high-seas chases by the Coast Guard, and even romantic pursuits. In Chases and Escapes, Paul

Nahin gives us the first complete history of this fascinating area of mathematics, from its classical analytical beginnings to the present day. Drawing on game theory, geometry, linear algebra, target-tracking algorithms, and much more, Nahin also offers an array of challenging puzzles with their historical background and broader applications. Chases and Escapes includes solutions to all problems and provides computer programs that readers can use for their own cutting-edge analysis. Now with a gripping new preface on how the Enola Gay escaped the shock wave from the atomic bomb dropped on Hiroshima, this book will appeal to anyone interested in the mathematics that underlie pursuit and evasion. Some images inside the book are unavailable due to digital copyright restrictions.

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