

1. Record Nr.	UNINA9910461264703321
Autore	Winston Wayne L.
Titolo	Mathletics : how gamblers, managers, and sports enthusiasts use mathematics in baseball, basketball, and football / / Wayne L. Winston
Pubbl/distr/stampa	Princeton, NJ : , : Princeton University Press, , [2012] ©2012
ISBN	1-283-41178-4 9786613411785 1-4008-4207-7
Edizione	[With a New epilogue by the author]
Descrizione fisica	1 online resource (391 pages)
Disciplina	796.0151
Soggetti	Sports - Mathematics Sports -- Mathematics Social Sciences Recreation & Sports Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references (pages 357-366) and index.
Nota di contenuto	Preface -- Acknowledgments -- List of abbreviations -- Part 1: Baseball -- 1: Baseball's Pythagorean Theorem -- 2: Who had a better year, Nomar Garciaparra or Ichiro Suzuki? -- Runs-created approach -- 3: Evaluating hitters by linear weights -- 4: Evaluating hitters by Monte Carlo simulation -- 5: Evaluating baseball pitchers and forecasting future pitcher performance -- 6: Baseball decision-making -- 7: Evaluating fielders -- Sabermetrics' Last Frontier -- 8: Player win averages -- 9: Value of replacement players -- Evaluating trades and fair salary -- 10: Park factors -- 11: Streakiness in sports -- 12: Platoon effect -- 13: Was Tony Perez a great clutch hitter? -- 14: Pitch count and pitcher effectiveness -- 15: Would Ted Williams hit 406 today? -- 16: Was Joe DiMaggio's 56-game hitting streak the greatest sports record of all time? -- 17: Major league equivalents -- Part 2: Football -- 18: What makes NFL teams win? -- 19: Who's better, Tom Brady or Peyton Manning? -- 20: Football states and values -- 21: Football decision-making 101 -- 22: State and value analysis of the

2006 Super Bowl Champion Colts -- 23: If passing is better than running, why don't teams always pass? -- 24: Should we go for a one-point or two-point conversion? -- 25: To give up the ball is better than to receive -- Case of college football overtime -- 26: Why is the NFL's overtime system fatally flawed? -- 27: How valuable are high draft picks in the NFL? -- Part 3: Basketball -- 28: Basketball statistics 101 -- Four-factor model -- 29: Linear weights for evaluating NBA players -- 30: Adjusted +/- player ratings -- 31: NBA lineup analysis -- 32: Analyzing team and individual matchups -- 33: NBA players' salaries and the draft -- 34: Are NBA officials prejudiced? -- 35: Are college basketball games fixed? -- 36: Did Tim Donaghy fix NBA games? -- 37: End-game basketball strategy -- Part 4: Playing With Money, And Other Topics For Serious Sports Fans -- 38: Sports gambling 101 -- 39: Freakonomics meets the bookmaker -- 40: Rating sports teams -- 41: Which league has greater parity, the NFL or the NBA? -- 42: Ratings Percentage Index (RPI) -- 43: From point ratings to probabilities -- 44: Optimal money management -- Kelly growth criteria -- 45: Ranking great sports collapses -- 46: Can money buy success? -- 47: Does Joey Crawford hate the Spurs? -- 48: Does fatigue make cowards of us all? -- Case of NBA back-to-back games and NFL bye weeks -- 49: Can the bowl championship series be saved? -- 50: Comparing players from different eras -- 51: Conclusions -- Index of databases -- Annotated bibliography -- Index.

---

#### Sommario/riassunto

Mathletics is a remarkably entertaining book that shows readers how to use simple mathematics to analyze a range of statistical and probability-related questions in professional baseball, basketball, and football, and in sports gambling. How does professional baseball evaluate hitters? Is a singles hitter like Wade Boggs more valuable than a power hitter like David Ortiz? Should NFL teams pass or run more often on first downs? Could professional basketball have used statistics to expose the crooked referee Tim Donaghy? Does money buy performance in professional sports? In Mathletics, Wayne Winston describes the mathematical methods that top coaches and managers use to evaluate players and improve team performance, and gives math enthusiasts the practical tools they need to enhance their understanding and enjoyment of their favorite sports--and maybe even gain the outside edge to winning bets. Mathletics blends fun math problems with sports stories of actual games, teams, and players, along with personal anecdotes from Winston's work as a sports consultant. Winston uses easy-to-read tables and illustrations to illuminate the techniques and ideas he presents, and all the necessary math concepts--such as arithmetic, basic statistics and probability, and Monte Carlo simulations--are fully explained in the examples. After reading Mathletics, you will understand why baseball teams should almost never bunt, why football overtime systems are unfair, why points, rebounds, and assists aren't enough to determine who's the NBA's best player--and much, much more. In a new epilogue, Winston discusses the stats and numerical analysis behind some recent sporting events, such as how the Dallas Mavericks used analytics to become the 2011 NBA champions.

---