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Nota di contenuto	Book Cover; Title; Copyright; Contents; Figures; Tables; Excel models; Acknowledgements; Symbols; Part I: The theory; Chapter 1: Sports projectile modelling: Why, how and ... so what!; Chapter 2: Launching projectiles into motion; Chapter 3: Motion of projectiles under the influence of gravity; Chapter 4: Impact and bounce; Chapter 5: Drag and lift; Chapter 6: The effects of spin; Part II: Practical applications; Chapter 7: Shot put and hammer; Chapter 8: Discus; Chapter 9: Javelin; Chapter 10: Golf; Chapter 11: Tennis and squash; Chapter 12: Cricket and baseball Chapter 13: Soccer (Association Football)Chapter 14: Rugby and American football; Chapter 15: Some assorted sporting projectiles; Appendix 1: Table of physical values and drag-to-weight ratio for a variety of sporting projectiles; Appendix 2: The fourth-order Runge-Kutta method; Bibliography; Selected answers; Index

Sommario/riassunto

How can we predict the trajectory of a baseball from bat to outfield?
How do the dimples in a golf ball influence its flight from tee to pin?
What forces determine the path of a soccer ball steered over a
defensive wall by an elite player? An understanding of the physical
processes involved in throwing, hitting, firing and releasing sporting
projectiles is essential for a full understanding of the science that
underpins sport. This is the first book to comprehensively examine
those processes and to explain the factors governing the trajectories of
sporting
