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Titolo	Inside Interesting Integrals [[electronic resource]] : A Collection of Sneaky Tricks, Sly Substitutions, and Numerous Other Stupendously Clever, Awesomely Wicked, and Devilishly Seductive Maneuvers for Computing Hundreds of Perplexing Definite Integrals From Physics, Engineering, and Mathematics (Plus Numerous Challenge Problems with Complete, Detailed Solutions) / / by Paul J. Nahin
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Descrizione fisica	1 online resource (542 pages)
Collana	Undergraduate Lecture Notes in Physics, , 2192-4791
Disciplina	530
Soggetti	Physics Applied mathematics Engineering mathematics Functions of real variables Sequences (Mathematics) Functions of complex variables Mathematical Methods in Physics Mathematical and Computational Engineering Real Functions Sequences, Series, Summability Functions of a Complex Variable
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	From the Contents: Preface -- Introduction -- 'Easy' Integrals -- Feynman's Favorite Trick -- Gamma and Beta Function Integrals -- Using Power Series to Evaluate Integrals -- Seven Not-So-Easy Integrals -- Using (-1) to Evaluate Integrals -- Contour Integration -- Epilogue -- Solutions to the Challenge Problems.
Sommario/riassunto	What's the point of calculating definite integrals since you can't possibly do them all? What makes doing the specific integrals in this

book of value aren't the specific answers we'll obtain, but rather the methods we'll use in obtaining those answers; methods you can use for evaluating the integrals you will encounter in the future. This book, now in its second edition, is written in a light-hearted manner for students who have completed the first year of college or high school AP calculus and have just a bit of exposure to the concept of a differential equation. Every result is fully derived. If you are fascinated by definite integrals, then this is a book for you. New material in the second edition includes 25 new challenge problems and solutions, 25 new worked examples, simplified derivations, and additional historical discussion. .
