1. Record Nr. UNINA9910712905603321

Autore	Merrill R. G
Titolo	Radiation patterns in the lower ionosphere and Fresnel zones for elevated antennas over a spherical earth / / R.G. Merrill and W.V. Mansfield
Pubbl/distr/stampa	Washington : , : U.S. Dept. of Commerce, National Bureau of Standards, , 1962
Descrizione fisica	1 online resource (iii, 128 pages) : diagrams
Collana	NBS monograph ; ; 38
Disciplina	621.384135
Soggetti	Ionospheric radio wave propagation Radio waves - Scattering Radio - Antennas Ondes radio electriques - Diffusion Ondes radio electriques - Propagation dans l'atmosph ere Radio - Antennes
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	"References and notes": page 29.

2. Record Nr. UNINA9910791746803321

Autore	Burk Frank
Titolo	A garden of integrals / / Frank Burk [[electronic resource]]
Pubbl/distr/stampa	Washington : , : Mathematical Association of America, , 2007
ISBN	1-61444-209-6
Descrizione fisica	1 online resource (xiv, 281 pages) : digital, PDF file(s)
Collana	Dolciani Mathematical Expositions, ; v. 31 Dolciani mathematical expositions ; ; no. 31
Disciplina	515/.43
Soggetti	Integrals
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Title from publisher's bibliographic system (viewed on 02 Oct 2015).
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Foreword -- ; An historical overview -- ; 1.1. Rearrangements -- ; 1.2. The lune of Hippocrates -- ; 1.3. Exdoxus and the method of exhaustion -- ; 1.4. Archimedes' method -- 1.5. Gottfried Leibniz and Isaac Newton -- ; 1.6. Augustin-Louis Cauchy -- ; 1.7. Bernhard Riemann -- ; 1.8. Thomas Stieltjes -- ; 1.9. Henri Lebesgue -- ; 1.10. The Lebesgue-Stieltjes integral -- ; 1.11. Ralph Henstock and Jaroslav Kurzweil -- ; 1.12. Norbert Wiener -- ; 1.13. Richard Feynman -- ; 1.14. References -- ; 2. The Cauchy integral -- ; 2.1. Exploring integration -- ; 2.2. Cauchy's integral -- ; 2.3. Recovering functions by integration -- ; 2.4. Recovering functions by differentiation -- ; 2.5. A convergence theorem -- ; 2.6. Joseph Fourier -- ; 2.7. P.G. Lejeune Dirichlet -- ; 2.8. Patrick Billingsley's example -- ; 2.9. Summary -- ; 2.10. References -- ; 3. The Riemann integral -- ; 3.1. Riemann's integral -- ; 3.2. Criteria for Riemann integrability -- ; 3.3. Cauchy and Darboux criteria for Riemann integrability -- ; 3.4. Weakening continuity -- ; 3.5. Monotonic functions are Riemann integrable -- ; 3.6. Lebesgue's criteria -- ; 3.7. Evaluating a la Riemann -- ; 3.8. Sequences of Riemann integrable functions -- ; 3.9. The Cantor set -- ; 3.10. A nowhere dense set of positive measure -- ; 3.11. Cantor functions -- ; 3.12. Volterra's example -- ; 3.13. Lengths of graphs and the Cantor function -- ; 3.14. Summary -- ; 3.15. References. ; 4. Riemann-Stieltjes integral -- ; 4.1. Generalizing the Riemann integral-- ; 4.2. Discontinuities -- ; 4.3. Existence of Riemann-Stieltjes integrals -- ; 4.4. Monotonicity of [null] -- ; 4.5. Euler's summation

formula -- ; 4.6. Uniform convergence and R-S integration -- ; 4.7. References -- ; 5. Lebesgue measure -- ; 5.1. Lebesgue's idea -- ; 5.2. Measurable sets -- ; 5.3. Lebesgue measurable sets and Caratheodory -- ; 5.4. Sigma algebras -- ; 5.5. Borel sets -- ; 5.6. Approximating measurable sets -- ; 5.7. Measurable functions -- ; 5.8. More measureable functions -- ; 5.9. What does monotonicity tell us? -- ; 5.10. Lebesgue's differentiation theorem -- ; 5.11. References -- ; 6. The Lebesgue-Stieltjes integral -- ; 6.1. Introduction -- ; 6.2. Integrability : Riemann ensures Lebesgue -- ; 6.3. Convergence theorems -- ; 6.4. Fundamental theorems for the Lebesgue integral -- ; 6.5. Spaces -- ; 6.6. L^2[-pi, pi] and Fourier series -- ; 6.7. Lebesgue measure in the plane and Fubini's theorem -- ; 6.8. Summary-- References -- ; 7. The Lebesgue-Stieltjes integral -- ; 7.1. L-S measures and monotone increasing functions -- ; 7.2. Caratheodory's measurability criterion -- ; 7.3. Avoiding complacency -- ; 7.4. L-S measures and nonnegative Lebesgue integrable functions -- ; 7.5. L-S measures and random variables -- ; 7.6. The Lebesgue-Stieltjes integral -- ; 7.7. A fundamental theorem for L-S integrals -- ; 7.8. References.
; 8. The Henstock-Kurzweil integral -- ; 8.1. The generalized Riemann integral -- ; 8.2. Gauges and [infinity]-fine partitions -- ; 8.3. H-K integrable functions -- ; 8.4. The Cauchy criterion for H-K integrability -- ; 8.5. Henstock's lemma -- ; 8.6. Convergence theorems for the H-K integral -- ; 8.7. Some properties of the H-K integral -- ; 8.8. The second fundamental theorem -- ; 8.9. Summary-- ; 8.10. References -- ; 9. The Wiener integral -- ; 9.1. Brownian motion -- ; 9.2. Construction of the Wiener measure -- ; 9.3. Wiener's theorem -- ; 9.4. Measurable functionals -- ; 9.5. The Wiener integral -- ; 9.6. Functionals dependent on a finite number of t values -- ; 9.7. Kac's theorem -- ; 9.8. References -- ; 10. Feynman integral -- ; 10.1. Introduction -- ; 10.2. Summing probability amplitudes -- ; 10.3. A simple example -- ; 10.4. The Fourier transform -- ; 10.5. The convolution product -- ; 10.6. The Schwartz space -- ; 10.7. Solving Schrodinger problem A -- ; 10.8. An abstract Cauchy problem -- ; 10.9. Solving in the Schwartz space -- ; 10.10. Solving Schrodinger problem B -- ; 10.11. References -- Index -- About the author.

Sommario/riassunto

The derivative and the integral are the fundamental notions of calculus. Though there is essentially only one derivative, there are a variety of integrals, developed over the years for a variety of purposes, and this book describes them. No other single source treats all of the integrals of Cauchy, Riemann, Riemann-Stieltjes, Lebesgue, Lebesgue-Steiltjes, Henstock-Kurzweil, Weiner, and Feynman. The basic properties of each are proved, their similarities and differences are pointed out, and the reason for their existence and their uses are given. Historical information is plentiful. Advanced undergraduate mathematics majors, graduate students, and faculty members are the audience for the book. Even experienced faculty members are unlikely to be aware of all of the integrals in the Garden of Integrals and the book provides an opportunity to see them and appreciate the richness of the idea of integral. Professor Burke's clear and well-motivated exposition makes this book a joy to read.