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| | Autore | Fonda Alessandro |
| | Titolo | The Kurzweil-Henstock Integral for Undergraduates : A Promenade Along the Marvelous Theory of Integration / / by Alessandro Fonda |
| | Pubbl/distr/stampa | Cham : , : Springer International Publishing : , : Imprint : Birkhäuser, , 2018 |
| | ISBN | 3-319-95321-4 |
| | Edizione | [1st ed. 2018.] |
| | Descrizione fisica | 1 online resource (X, 216 p. 24 illus., 5 illus. in color.) |
| | Collana | Compact Textbooks in Mathematics, , 2296-4568 |
| | Disciplina | 515 |
| | Soggetti | Functions of real variables<br>Measure theory<br>Real Functions<br>Measure and Integration |
| | Lingua di pubblicazione | Inglese |
| | Formato | Materiale a stampa |
| | Livello bibliografico | Monografia |
| | Nota di contenuto | Functions of one real variable -- Functions of several real variables -- Differential forms -- Differential calculus in RN -- The Stokes–Cartan and the Poincaré theorems -- On differentiable manifolds -- The Banach–Tarski paradox -- A brief historical note. |
| | Sommario/riassunto | This beginners' course provides students with a general and sufficiently easy to grasp theory of the Kurzweil-Henstock integral. The integral is indeed more general than Lebesgue's in RN, but its construction is rather simple, since it makes use of Riemann sums which, being geometrically viewable, are more easy to be understood. The theory is developed also for functions of several variables, and for differential forms, as well, finally leading to the celebrated Stokes–Cartan formula. In the appendices, differential calculus in RN is reviewed, with the theory of differentiable manifolds. Also, the Banach–Tarski paradox is presented here, with a complete proof, a rather peculiar argument for this type of monographs. |