Springer

Sudhir R. Ghorpade
Balmohan V. Limaye
undergraduate texts in mathematics

## A Course in Multivariable Calculus and Analysis


(4) Springer

2010, XII, 475 p. 65 illus. in color.

## Printed book

Hardcover
74,99 € | £64.99 | \$89.99
${ }^{[1]} 80,24 €(\mathrm{D})|82,49 €(\mathrm{~A})| \mathrm{CHF}$ 88,50

## Softcover

64,99 € | £54.99 | \$79.99
${ }^{[1]} 69,54 €(\mathrm{D})|71,49 €(A)| C H F$ 77,00
eBook
53,54 €| £43.99 | \$59.99
${ }^{[2]} 53,54 €(D)|53,54 €(A)| C H F$ 61,50
Available from your library or springer.com/shop
MyCopy ${ }^{[3]}$
Printed eBook for just
€ | \$ 24.99
springer.com/mycopy

# A Course in Multivariable Calculus and Analysis 

Series: Undergraduate Texts in Mathematics

- Self-contained Neatly ties up multivariable calculus with its relics in one variable calculus Caters to theoretical as well as practical aspects of multivariable calculus Contains extensive material on topics not typically covered in multivariable calculus textbooks, such as: monotonicity and bimonotonicity of functions of two variables and their relationship with partial differentiation; higher order directional derivatives and their use in Taylor's Theorem

Calculus of real-valued functions of several real variables, also known as m- tivariable calculus, is a rich and fascinating subject. On the one hand, it seeks to extend eminently useful and immensely successful notions in one-variable calculus such as limit, continuity, derivative, and integral to "higher dim- sions. " On the other hand, the fact that there is much more room to move n about in the n -space R than on the real line R brings to the fore deeper geometric and topological notions that play a signi?cant role in the study of functions of two or more variables. Courses in multivariable calculus at an undergraduate level and even at an advanced level are often faced with the unenviable task of conveying the multifarious and multifaceted aspects of multivariable calculus to a student in the span of just about a semester or two. Ambitious courses and teachers would try to give some idea of the general Stokes's theorem for di?erential forms on manifolds as a grand generalization of the fundamental theorem of calculus, and prove the change of variables formula in all its glory. They would also try to do justice to important results such as the implicit function theorem, which really have no counterpart in one-variable calculus.

[^0]
[^0]:    Order online at springer.com / or for the Americas call (toll free) 1-800-SPRINGER /
    or email us at: customerservice@springernature.com. / For outside the Americas call +49 (0) 6221-345-4301 / or email us at: customerservice@springernature.com.
    The first $€$ price and the $£$ and $\$$ price are net prices, subject to local VAT. Prices indicated with [1] include VAT for books; the $€(D)$ includes $7 \%$ for Germany, the $€(A)$ includes $10 \%$ for Austria. Prices indicated with [2] include VAT for electronic products; $19 \%$ for Germany, 20\% for Austria. All prices exclusive of carriage charges. Prices and other details are subject to change without notice. All errors and omissions excepted. [3] No discount for MyCopy.

