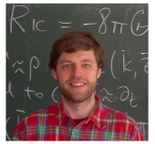
About this book and the author

This book is a pedagogical introduction to the coordinate-free approach in finite-dimensional linear algebra, at the undergraduate level. Throughout this book, extensive use is made of the exterior ("wedge") product of vectors. In this approach, the book derives, without matrix calculations, the standard properties of determinants, the formulas of Jacobi and Liouville, the Cayley-Hamilton theorem, properties of Pfaffians, the Jordan canonical form, as well as some generalizations of these results. Every concept is logically motivated and discussed; exercises with some hints are provided.



Sergei Winitzki received a PhD in theoretical physics from Tufts University, USA (1997) and has been a researcher and part-time lecturer at universities in the USA, UK, and Germany. Dr. Winitzki has authored a number of research articles and two books on his main professional interest, theoretical physics. He is presently employed as a senior academic fellow at the Ludwig-Maximilians-University, Munich (Germany).

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