1. Record Nr. UNINA9910480848803321

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Titolo	An Accompaniment to Higher Mathematics [[electronic resource] /] / by George R. Exner
Pubbl/distr/stampa	New York, NY : , : Springer New York : , : Imprint : Springer, , 1996
ISBN	1-4612-3998-2
Edizione	[1st ed. 1996.]
Descrizione fisica	1 online resource (XVII, 200 p.)
Collana	Undergraduate Texts in Mathematics, , 0172-6056
Disciplina	511.3
Soggetti	Mathematical analysis Analysis (Mathematics) Topology Mathematical logic Analysis Mathematical Logic and Foundations
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1 Examples -- 1.1 Propaganda -- 1.2 Basic Examples for Definitions -- 1.3 Basic Examples for Theorems -- 1.4 Extended Examples -- 1.5 Notational Interlude -- 1.6 Examples Again: Standard Sources -- 1.7 Non-examples for Definitions -- 1.8 Non-examples for Theorems -- 1.9 Summary and More Propaganda -- 1.10 What Next? -- 2 Informal Language and Proof -- 2.1 Ordinary Language Clues -- 2.2 Real-Life Proofs vs. Rules of Thumb -- 2.3 Proof Forms for Implication -- 2.4 Two More Proof Forms -- 2.5 The Other Shoe, and Propaganda -- 3 For mal Language and Proof -- 3.1 Propaganda -- 3.2 Formal Language: Basics -- 3.3 Quantifiers -- 3.4 Finding Proofs from Structure -- 3.5 Summary, Propaganda, and What Next? -- 4 Laboratories -- 4.1 Lab I: Sets by Example -- 4.2 Lab II: Functions by Example -- 4.3 Lab III: Sets and Proof -- 4.4 Lab IV: Functions and Proof -- 4.5 Lab V: Function of Sets -- 4.6 Lab VI: Families of Sets -- A Theoretical Apologia -- B Hints -- References.
Sommario/riassunto	For Students Congratulations! You are about to take a course in mathematical proof. If you are nervous about the whole thing, this book is for you (if not, please read the second and third paragraphs in

the introduction for professors following this, so you won't feel left out). The rumors are true; a first course in proof may be very hard because you will have to do three things that are probably new to you: 1. Read mathematics independently. 2. Understand proofs on your own. :1. Discover and write your own proofs. This book is all about what to do if this list is threatening because you "never read your calculus book" or "can't do proofs. " Here's the good news: you must be good at mathematics or you wouldn't have gotten this far. Here's the bad news: what worked before may not work this time. Success may lie in improving or discarding many habits that were good enough once but aren't now. Let's see how we've gotten to a point at which someone could dare to imply that you have bad habits. I The typical elementary and high school mathematics education in the United States tends to teach students to have ineffective learning habits, 1 In the first paragraph, yet. xiv Introduction and we blush to admit college can be just as bad.

2. Record Nr. UNINA9910163046303321

Titolo	3D Microelectronic Packaging : From Fundamentals to Applications / / edited by Yan Li, Deepak Goyal
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2017
ISBN	3-319-44586-3
Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (IX, 463 p. 331 illus., 253 illus. in color.)
Collana	Springer Series in Advanced Microelectronics, , 1437-0387 ; ; 57
Disciplina	621.381
Soggetti	Electronics Microelectronics Optical materials Electronics - Materials Electronic circuits Biotechnology Nanotechnology Metals Electronics and Microelectronics, Instrumentation Optical and Electronic Materials Electronic Circuits and Devices Microengineering Nanotechnology and Microengineering Metallic Materials

Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction to 3D Microelectronic Packaging.-3D packaging architecture and assembly process design.-Materials and Processing of TSV.-Microstructural and Reliability Issues of TSV -- Fundamentals and failures in Die preparation for 3D packaging.-Direct Cu to Cu bonding and other alternative bonding techniques in 3D packaging -- Fundamental of Thermal Compression Bonding Technology and Process Materials for 2.5/3D Packages -- Fundamentals of solder alloys in 3D packaging.-Fundamentals of Electromigration in interconnects of 3D packages.-Fundamentals of heat dissipation in 3D IC packaging -- Fundamentals of advanced materials and processes in organic substrate technology -- Die and Package Level Thermal and Thermal/Moisture Stresses in 3-D Packaging: Modeling and Characterization -- Processing and Reliability of Solder Interconnections in Stacked Packaging -- Interconnect Quality and Reliability of 3D Packaging -- Fault isolation and failure analysis of 3D packaging. .
Sommario/riassunto	This volume provides a comprehensive reference for graduate students and professionals in both academia and industry on the fundamentals, processing details, and applications of 3D microelectronic packaging, an industry trend for future microelectronic packages. Chapters written by experts cover the most recent research results and industry progress in the following areas: TSV, die processing, micro bumps, direct bonding, thermal compression bonding, advanced materials, heat dissipation, thermal management, thermal mechanical modeling, quality, reliability, fault isolation, and failure analysis of 3D microelectronic packages. Numerous images, tables, and didactic schematics are included throughout. This essential volume equips readers with an in-depth understanding of all aspects of 3D packaging, including packaging architecture, processing, thermal mechanical and moisture related reliability concerns, common failures, developing areas, and future challenges, providing insights into key areas for future research and development. Provides comprehensive coverage of the state-of-the-art in 3D microelectronic packages Covers advanced materials and processes, quality and reliability concerns, and fault isolation and failure analysis Discusses 3D electronic package architecture and assembly process design Features contributions from both academic and industry authors, for a complete view of this important technology.