

1. Record Nr.	UNISA996418444503316
Autore	Kirkland Earl J
Titolo	Advanced Computing in Electron Microscopy [[electronic resource] /] / by Earl J. Kirkland
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020
ISBN	3-030-33260-8
Edizione	[3rd ed. 2020.]
Descrizione fisica	1 online resource (XII, 354 p. 146 illus., 8 illus. in color.)
Disciplina	502.825
Soggetti	Spectroscopy Microscopy Optical data processing Materials science Spectroscopy and Microscopy Image Processing and Computer Vision Characterization and Evaluation of Materials Biological Microscopy Spectroscopy/Spectrometry
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- The Transmission Electron Microscope -- Some Image Approximations -- Sampling and the Fast Fourier Transform -- Calculation of Images of Thin Specimens -- Theory of Calculation of Images of Thick Specimens -- Multislice Applications and Examples -- The Programss -- App. A: Plotting Transfer Functions -- App. B: The Fourier Projection Theorem -- App. C: Atomic Potentials and Scattering Factors -- App. D: The Inverse Problem -- App. E: Bilinear Interpolation -- App. F: 3D Perspective View.
Sommario/riassunto	This updated and revised edition of a classic work provides a summary of methods for numerical computation of high resolution conventional and scanning transmission electron microscope images. At the limits of resolution, image artifacts due to the instrument and the specimen interaction can complicate image interpretation. Image calculations can help the user to interpret and understand high resolution information

in recorded electron micrographs. The book contains expanded sections on aberration correction, including a detailed discussion of higher order (multipole) aberrations and their effect on high resolution imaging, new imaging modes such as ABF (annular bright field), and the latest developments in parallel processing using GPUs (graphic processing units), as well as updated references. Beginning and experienced users at the advanced undergraduate or graduate level will find the book to be a unique and essential guide to the theory and methods of computation in electron microscopy.

2. Record Nr.	UNINA9910143830703321
Autore	Kim Jay S
Titolo	Biostatistics for oral healthcare // Jay S. Kim, Ronald J. Dailey
Pubbl/distr/stampa	Ames, Iowa, : Blackwell Munksgaard, 2008
ISBN	1-281-45040-5 9786611450403 0-470-38830-7 0-470-38827-7
Descrizione fisica	1 online resource (344 pages)
Altri autori (Persone)	DaileyRonald
Disciplina	617.60072
Soggetti	Odontologia Estadística matemàtica Biometria Dentistry - Statistical methods Biometry Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Biostatistics for Oral Healthcare; Contents; Preface; 1 Introduction; 1.1 What Is Biostatistics?; 1.2 Why Do I Need Statistics?; 1.3 How Much Mathematics Do I Need?; 1.4 How Do I Study Statistics?; 1.5 Reference; 2 Summarizing Data and Clinical Trials; 2.1 Raw Data and Basic Terminology; 2.2 The Levels of Measurements; 2.3 Frequency

Distributions; 2.3.1 Frequency Tables; 2.3.2 Relative Frequency; 2.4 Graphs; 2.4.1 Bar Graphs; 2.4.2 Pie Charts; 2.4.3 Line Graph; 2.4.4 Histograms; 2.4.5 Stem and Leaf Plots; 2.5 Clinical Trials and Designs; 2.6 Confounding Variables; 2.7 Exercises
2.8 References; 3 Measures of Central Tendency, Dispersion, and Skewness; 3.1 Introduction; 3.2 Mean; 3.3 Weighted Mean; 3.4 Median; 3.5 Mode; 3.6 Geometric Mean; 3.7 Harmonic Mean; 3.8 Mean and Median of Grouped Data; 3.9 Mean of Two or More Means; 3.10 Range; 3.11 Percentiles and Interquartile Range; 3.12 Box-Whisker Plot; 3.13 Variance and Standard Deviation; 3.14 Coefficient of Variation; 3.15 Variance of Grouped Data; 3.16 Skewness; 3.17 Exercises; 3.18 References; 4 Probability; 4.1 Introduction; 4.2 Sample Space and Events; 4.3 Basic Properties of Probability
4.4 Independence and Mutually Exclusive Events; 4.5 Conditional Probability; 4.6 Bayes Theorem; 4.7 Rates and Proportions; 4.7.1 Prevalence and Incidence; 4.7.2 Sensitivity and Specificity; 4.7.3 Relative Risk and Odds Ratio; 4.8 Exercises; 4.9 References; 5 Probability Distributions; 5.1 Introduction; 5.2 Binomial Distribution; 5.3 Poisson Distribution; 5.4 Poisson Approximation to Binomial Distribution; 5.5 Normal Distribution; 5.5.1 Properties of Normal 5.5 NORMAL DISTRIBUTION Distribution; 5.5.2 Standard Normal Distribution; 5.5.3 Using Normal Probability Table
5.5.4 Further Applications of Normal Probability; 5.5.5 Finding the (1-a) 100th Percentiles; 5.5.6 Normal Approximation to the Binomial Distribution; 5.6 Exercises; 5.7 References; 6 Sampling Distributions; 6.1 Introduction; 6.2 Sampling Distribution of the Mean; 6.2.1 Standard Error of the Sample Mean; 6.2.2 Central Limit Theorem; 6.3 Student t Distribution; 6.4 Exercises; 6.5 References; 7 Confidence Intervals and Sample Size; 7.1 Introduction; 7.2 Confidence Intervals for the Mean and Sample Size n When σ Is Known
7.3 Confidence Intervals for the Mean and Sample Size n When σ Is Not Known; 7.4 Confidence Intervals for the Binomial Parameter p ; 7.5 Confidence Intervals for the Variances and Standard Deviations; 7.6 Exercises; 7.7 References; 8 Hypothesis Testing: One-Sample Case; 8.1 Introduction; 8.2 Concepts of Hypothesis Testing; 8.3 One-Tailed Z Test of the Mean of a Normal Distribution When σ Is Known; 8.4 Two-Tailed Z Test of the Mean of a Normal Distribution When σ Is Known; 8.5 t Test of the Mean of a Normal Distribution; 8.6 The Power of a Test and Sample Size; 8.7 One-Sample Test for a Binomial Proportion

Sommario/riassunto

Biostatistics for Oral Healthcare offers students, practitioners and instructors alike a comprehensive guide to mastering biostatistics and their application to oral healthcare. Drawing on situations and methods from dentistry and oral healthcare, this book provides a thorough treatment of statistical concepts in order to promote in-depth and correct comprehension, supported throughout by technical discussion and a multitude of practical examples.
