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| Nota di contenuto | Guide to ANALYSIS OF DNA MICROARRAY DATA; Contents; Preface; Acknowledgments; 1 Introduction to DNA Microarray Technology; 1.1 Hybridization; 1.2 Gold Rush?; 1.3 The Technology Behind DNA Microarrays; 1.3.1 Affymetrix GeneChip Technology; 1.3.2 Spotted Arrays; 1.3.3 Digital Micromirror Arrays; 1.3.4 Inkjet Arrays; 1.3.5 Bead Arrays; 1.3.6 Serial Analysis of Gene Expression (SAGE); 1.4 Parallel Sequencing on Microbead Arrays; 1.4.1 Emerging Technologies; 1.5 Example: Affymetrix vs. Spotted Arrays; 1.6 Summary; 1.7 Further Reading; 2 Overview of Data Analysis; 3 Image Analysis; 3.1 Gridding 3.2 Segmentation3.3 Intensity Extraction; 3.4 Background Correction; 3.5 Software; 3.5.1 Free Software for Array Image Analysis; 3.5.2 Commercial Software for Array Image Analysis; 3.6 Summary; 3.7 Further Reading; 4 Basic Data Analysis; 4.1 Normalization; 4.1.1 One or More Genes Assumed Expressed at Constant Rate; 4.1.2 Sum of Genes is Assumed Constant; 4.1.3 Subset of Genes is Assumed Constant; 4.1.4 Majority of Genes Assumed Constant; 4.1.5 Spike Controls; 4.2 Dye Bias, Spatial Bias, Print Tip Bias; 4.3 Expression Indices; 4.3.1 |

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10.3.4 Support Vector Machine

Sommario/riassunto

Written for biologists and medical researchers who don't have any special training in data analysis and statistics, Guide to Analysis of DNA Microarray Data, Second Edition begins where DNA array equipment leaves off: the image produced by the microarray. The text deals with the questions that arise starting at this point, providing an introduction to microarray technology, then moving on to image analysis, data analysis, cluster analysis, and beyond.With all chapters rewritten, updated, and expanded to include the latest generation of technology and methods, Guide to Analysis of DNA Micro