1. Record Nr. UNINA9910958625303321 Autore Härdle Wolfgang Titolo Smoothing Techniques: With Implementation in S / / by Wolfgang Härdle New York, NY:,: Springer New York:,: Imprint: Springer,, 1991 Pubbl/distr/stampa **ISBN** 1-4612-4432-3 [1st ed. 1991.] Edizione Descrizione fisica 1 online resource (XII, 262 p.) Collana Springer Series in Statistics, , 2197-568X Disciplina 519 Soggetti Mathematics Applications of Mathematics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia "With 87 Illustrations." Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto I. Density Smoothing -- 1. The Histogram -- 2. Kernel Density Estimation -- 3. Further Density Estimators -- 4. Bandwidth Selection in Practice -- II. Regression Smoothing -- 5. Nonparametric Regression -- 6. Bandwidth Selection -- 7. Simultaneous Error Bars -- Tables --Solutions -- List of Used S Commands -- Symbols and Notation --References. Sommario/riassunto The author has attempted to present a book that provides a nontechnical introduction into the area of non-parametric density and regression function estimation. The application of these methods is discussed in terms of the S computing environment. Smoothing in high dimensions faces the problem of data sparseness. A principal feature of smoothing, the averaging of data points in a prescribed neighborhood. is not really practicable in dimensions greater than three if we have just one hundred data points. Additive models provide a way out of this dilemma: but, for their interactiveness and recursiveness, they require

highly effective algorithms. For this purpose, the method of WARPing (Weighted Averaging using Rounded Points) is described in great detail.