

Properties Of Partial Least Squares Pls Regression And

This edited book presents the recent developments in partial least squares-path modeling (PLS-PM) and provides a comprehensive overview of the current state of the most advanced research related to PLS-PM. The first section of this book emphasizes the basic concepts and extensions of the PLS-PM method. The second section discusses the methodological issues that are the focus of the recent development of the PLS-PM method. The third part discusses the real world application of the PLS-PM method in various disciplines. The contributions from expert authors in the field of PLS focus on topics such as the factor-based PLS-PM, the perfect match between a model and a mode, quantile composite-based path modeling (QC-PM), ordinal consistent partial least squares (OrdPLSc), non-symmetrical composite-based path modeling (NSCPM), modern view for mediation analysis in PLS-PM, a multi-method approach for identifying and treating unobserved heterogeneity, multigroup analysis (PLS-MGA), the assessment of the common method bias, non-metric PLS with categorical indicators, evaluation of the efficiency and accuracy of model misspecification and bootstrap parameter recovery in PLS-PM, CB-SEM, and the Bollen-Stine methods and importance-performance map analysis (IPMA) for nonlinear relationships. This book will be useful for researchers and practitioners interested in the latest advances in PLS-PM as well as master and Ph.D. students in a variety of disciplines using the PLS-PM method for their projects.

Algebraic methods and arguments in statistics and probability are well known, from Gauss' least squares principle through Fisher's method of variance decomposition. The relevance of group-theoretic arguments, for example, became evident in the 1980s. Such techniques continue to be of interest today, along with other developments, such as the use of graph theory in modelling complex stochastic systems. This volume is based on lectures presented at the AMS Special Session on Algebraic Methods and Statistics held at the University of Notre Dame (Indiana) and on contributed articles solicited for this volume. The articles are intended to foster communication between representatives of the diverse scientific areas in which these functions are utilized and to further the trend of utilizing algebraic methods in the areas of statistics and probability. This is one of few volumes devoted to the subject of algebraic methods in statistics and probability. The wide range of topics covered in this volume demonstrates the vigorous level of research and opportunities ongoing in these areas.

Partial least squares structural equation modelling (PLS-SEM) is becoming a popular statistical framework in many fields and disciplines of the social sciences. The main reason for this popularity is that PLS-SEM can be used to estimate models including latent variables, observed variables, or a combination of these. The popularity of PLS-SEM is predicted

to increase even more as a result of the development of new and more robust estimation approaches, such as consistent PLS-SEM. The traditional and modern estimation methods for PLS-SEM are now readily facilitated by both open-source and commercial software packages. This book presents PLS-SEM as a useful practical statistical toolbox that can be used for estimating many different types of research models. In so doing, the authors provide the necessary technical prerequisites and theoretical treatment of various aspects of PLS-SEM prior to practical applications. What makes the book unique is the fact that it thoroughly explains and extensively uses comprehensive Stata (plsem) and R (cSEM and plspm) packages for carrying out PLS-SEM analysis. The book aims to help the reader understand the mechanics behind PLS-SEM as well as performing it for publication purposes. Features: Intuitive and technical explanations of PLS-SEM methods Complete explanations of Stata and R packages Lots of example applications of the methodology Detailed interpretation of software output Reporting of a PLS-SEM study Github repository for supplementary book material The book is primarily aimed at researchers and graduate students from statistics, social science, psychology, and other disciplines. Technical details have been moved from the main body of the text into appendices, but it would be useful if the reader has a solid background in linear regression analysis.

Since the publication of the first edition, the field has changed dramatically. Scientists can now explicitly consider 3D features in quantitative structure-activity relationship (QSAR) studies and often have the 3D structure of the macromolecular target to guide the 3D QSAR. Improvements in computer hardware and software have also made the methods

Data-driven Design of Fault Diagnosis and Fault-tolerant Control Systems presents basic statistical process monitoring, fault diagnosis, and control methods and introduces advanced data-driven schemes for the design of fault diagnosis and fault-tolerant control systems catering to the needs of dynamic industrial processes. With ever increasing demands for reliability, availability and safety in technical processes and assets, process monitoring and fault-tolerance have become important issues surrounding the design of automatic control systems. This text shows the reader how, thanks to the rapid development of information technology, key techniques of data-driven and statistical process monitoring and control can now become widely used in industrial practice to address these issues. To allow for self-contained study and facilitate implementation in real applications, important mathematical and control theoretical knowledge and tools are included in this book. Major schemes are presented in algorithm form and demonstrated on industrial case systems. Data-driven Design of Fault Diagnosis and Fault-tolerant Control Systems will be of interest to process and control engineers, engineering students and researchers with a control engineering background.

Diversas propiedades físico-químicas de gasolinas (teores de álcool, benzeno, aromáticos, saturados e olefinas,

densidade, MON, RON e temperaturas de destilação) foram estimadas simultaneamente por espectroscopia na região do infravermelho médio (FTIR) acoplada à regressão por mínimos quadrados parciais (PLS). Os métodos de referência utilizados incluíram métodos ASTM, ABNT e o equipamento IROX, baseado em espectroscopia na região do infravermelho próximo. Embora o erro médio da predição (RMSEP) tenha sido o principal parâmetro considerado para selecionar o melhor modelo de predição para cada propriedade, a repetibilidade e a reprodutibilidade também foram avaliados. As propriedades que tiveram como método de referência o equipamento IROX (todos os teores, MON e RON) apresentaram, em geral, resultados mais pobres, sendo o pior resultado encontrado para o teor de olefinas (21,3 " 2,4) e o melhor para MON (82,5 " 0,5). No caso das propriedades que tiveram como referência métodos ASTM ou ABNT (teor de álcool, densidade e temperaturas de destilação) o pior resultado encontrado foi para o teor de álcool (23,9 " 0,7) e o melhor para a densidade (0,7556 " 0,0025). No entanto, mesmo quando os valores de RMSEP encontrados através da regressão PLS foram considerados pequenos, os coeficientes de correlação (R^2) entre os valores preditos e os de referência, para um conjunto de amostras independentes da calibração, foram menores que 0,70, para todas as propriedades. Isso se deve, principalmente, a pouca variação nos valores de algumas propriedades, como MON, por exemplo, que em todas as gasolinas analisadas apresentou valores entre 81,4 e 83,8. Ainda assim, o método FTIR-PLS mostrou-se bastante promissor como uma alternativa para a análise de gasolinas, podendo ser melhorado com a utilização de maior número de amostras de calibração e/ou com a utilização de um conjunto de amostras mais representativo, além da utilização de métodos de referência padrão.

Written as an extension of *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM) Second Edition*, this easy-to-understand, practical guide covers advanced content on PLS-SEM to help students and researchers apply techniques to research problems and accurately interpret results. The book provides a brief overview of basic concepts before moving to the more advanced material. Offering extensive examples on SmartPLS 3 software (www.smartpls.com) and accompanied by free downloadable data sets, the book emphasizes that any advanced PLS-SEM approach should be carefully applied to ensure that it fits the appropriate research context and the data characteristics that underpin the research.

Partial Least Squares (PLS) is an estimation method and an algorithm for latent variable path (LVP) models. PLS is a component technique and estimates the latent variables as weighted aggregates. The implications of this choice are considered and compared to covariance structure techniques like LISREL, COSAN and EQS. The properties of special cases of PLS (regression, factor scores, structural equations, principal components, canonical correlation, hierarchical components, correspondence analysis, three-mode path and component analysis) are examined step by step and contribute to the understanding of the general PLS technique. The proof of the convergence of the PLS algorithm is extended beyond two-block models. Some 10 computer programs and 100 applications of PLS are referenced. The book gives

the statistical underpinning for the computer programs PLS 1.8, which is in use in some 100 university computer centers, and for PLS/PC. It is intended to be the background reference for the users of PLS 1.8, not as textbook or program manual.

The scope of the symposium covers all major aspects of system identification, experimental modelling, signal processing and adaptive control, ranging from theoretical, methodological and scientific developments to a large variety of (engineering) application areas. It is the intention of the organizers to promote SYSID 2003 as a meeting place where scientists and engineers from several research communities can meet to discuss issues related to these areas. Relevant topics for the symposium program include: Identification of linear and multivariable systems, identification of nonlinear systems, including neural networks, identification of hybrid and distributed systems, Identification for control, experimental modelling in process control, vibration and modal analysis, model validation, monitoring and fault detection, signal processing and communication, parameter estimation and inverse modelling, statistical analysis and uncertainty bounding, adaptive control and data-based controller tuning, learning, data mining and Bayesian approaches, sequential Monte Carlo methods, including particle filtering, applications in process control systems, motion control systems, robotics, aerospace systems, bioengineering and medical systems, physical measurement systems, automotive systems, econometrics, transportation and communication systems *Provides the latest research on System Identification *Contains contributions written by experts in the field *Part of the IFAC Proceedings Series which provides a comprehensive overview of the major topics in control engineering.

This book is both a reference for engineers and scientists and a teaching resource, featuring tutorial chapters and research papers on feature extraction. Until now there has been insufficient consideration of feature selection algorithms, no unified presentation of leading methods, and no systematic comparisons.

This volume introduces the latest popular methods for conducting business research. The goal of each chapter author--a leading authority in a particular subject area--is to provide an understanding of each method with a minimum of mathematical derivations. The chapters are organized within three general interrelated topics--Measurement, Decision Analysis, and Modeling. The chapters on measurement discuss generalizability theory, latent trait and latent class models, and multi-faceted Rasch modeling. The chapters on decision analysis feature applied location theory models, data envelopment analysis, and heuristic search procedures. The chapters on modeling examine exploratory and confirmatory factor analysis, dynamic factor analysis, partial least squares and structural equation modeling, multilevel data analysis, modeling of longitudinal data by latent growth curve methods and structures, and configural models of longitudinal categorical data. Similar to other data mining and machine learning tasks, multi-label learning suffers from dimensionality. An effective way to mitigate this problem is through dimensionality reduction, which extracts a small number of features by removing irrelevant, redundant, and noisy information. The data mining and machine learning literature currently lacks a unified treatment of multi-label dimensionality reduction that incorporates both algorithmic developments and applications. Addressing this shortfall, Multi-Label Dimensionality Reduction covers the methodological developments, theoretical properties, computational aspects, and applications of many multi-label dimensionality reduction algorithms. It explores numerous research questions, including: How to fully exploit label correlations for effective dimensionality reduction How to scale dimensionality reduction algorithms to large-scale problems How to effectively combine dimensionality reduction with classification How to derive sparse dimensionality reduction algorithms to enhance model interpretability How to perform multi-label dimensionality reduction effectively in practical applications The authors emphasize their extensive work on dimensionality reduction for multi-label learning. Using a case study of Drosophila gene expression pattern image annotation, they demonstrate how to apply multi-label

dimensionality reduction algorithms to solve real-world problems. A supplementary website provides a MATLAB® package for implementing popular dimensionality reduction algorithms.

Partial least squares structural equation modeling (PLS-SEM) has become a standard approach for analyzing complex inter-relationships between observed and latent variables. Researchers appreciate the many advantages of PLS-SEM such as the possibility to estimate very complex models and the method's flexibility in terms of data requirements and measurement specification. This practical open access guide provides a step-by-step treatment of the major choices in analyzing PLS path models using R, a free software environment for statistical computing, which runs on Windows, macOS, and UNIX computer platforms. Adopting the R software's SEMinR package, which brings a friendly syntax to creating and estimating structural equation models, each chapter offers a concise overview of relevant topics and metrics, followed by an in-depth description of a case study. Simple instructions give readers the "how-tos" of using SEMinR to obtain solutions and document their results. Rules of thumb in every chapter provide guidance on best practices in the application and interpretation of PLS-SEM. This volume presents state of the art theories, new developments, and important applications of Partial Least Square (PLS) methods. The text begins with the invited communications of current leaders in the field who cover the history of PLS, an overview of methodological issues, and recent advances in regression and multi-block approaches. The rest of the volume comprises selected, reviewed contributions from the 8th International Conference on Partial Least Squares and Related Methods held in Paris, France, on 26-28 May, 2014. They are organized in four coherent sections: 1) new developments in genomics and brain imaging, 2) new and alternative methods for multi-table and path analysis, 3) advances in partial least square regression (PLSR), and 4) partial least square path modeling (PLS-PM) breakthroughs and applications. PLS methods are very versatile methods that are now used in areas as diverse as engineering, life science, sociology, psychology, brain imaging, genomics, and business among both academics and practitioners. The selected chapters here highlight this diversity with applied examples as well as the most recent advances.

A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM), by Hair, Hult, Ringle, and Sarstedt, provides a concise yet very practical guide to understanding and using PLS structural equation modeling (PLS-SEM). PLS-SEM is evolving as a statistical modeling technique and its use has increased exponentially in recent years within a variety of disciplines, due to the recognition that PLS-SEM's distinctive methodological features make it a viable alternative to the more popular covariance-based SEM approach. This text—the only comprehensive book available to explain the fundamental aspects of the method—includes extensive examples on SmartPLS software, and is accompanied by multiple data sets that are available for download from the accompanying website (www.pls-sem.com).

Using JMP statistical discovery software from SAS, Discovering Partial Least Squares with JMP explores Partial Least Squares and positions it within the more general context of multivariate analysis. This book motivates current and potential users of JMP to extend their analytical repertoire by embracing PLS. Dynamically interacting with JMP, you will develop confidence as you explore underlying concepts and work through the examples. The authors provide background and guidance to support and empower you on this journey.

A comprehensive review of the current status and challenges for natural gas and shale gas production, treatment and monetization technologies. *Natural Gas Processing from Midstream to Downstream* presents an international perspective on the production and monetization of shale gas and natural gas. The authors review techno-economic assessments of the midstream and downstream natural gas processing technologies. Comprehensive in scope, the text offers insight into the current status and the challenges facing the advancement of the midstream natural gas treatments. Treatments covered include gas sweetening processes, sulfur recovery units, gas dehydration and natural gas pipeline transportation. The authors highlight the downstream processes including physical treatment and chemical conversion of both direct and indirect conversion. The book also contains an important overview of natural gas monetization processes and the potential for shale gas to play a role in the future of the energy market, specifically for the production of ultra-clean fuels and value-added chemicals. This vital resource: Provides fundamental chemical engineering aspects of natural gas technologies Covers topics related to upstream, midstream and downstream natural gas treatment and processing Contains well-integrated coverage of several technologies and processes for treatment and production of natural gas Highlights the economic factors and risks facing the monetization technologies Discusses supply chain, environmental and safety issues associated with the emerging shale gas industry Identifies future trends in educational and research opportunities, directions and emerging opportunities in natural gas monetization Includes contributions from leading researchers in academia and industry Written for Industrial scientists, academic researchers and government agencies working on developing and sustaining state-of-the-art technologies in gas and fuels production and processing, *Natural Gas Processing from Midstream to Downstream* provides a broad overview of the current status and challenges for natural gas production, treatment and monetization technologies.

The series *Topics in Heterocyclic Chemistry* presents critical reviews on present and future trends in the research of heterocyclic compounds. Overall the scope is to cover topics dealing with all areas within heterocyclic chemistry, both experimental and theoretical, of interest to the general heterocyclic chemistry community. The series consists of topic related volumes edited by renowned editors with contributions of experts in the field.

New Perspectives in Partial Least Squares and Related Methods shares original, peer-reviewed research from presentations during the 2012 partial least squares methods meeting (PLS 2012). This was the 7th meeting in the series of PLS conferences and the first to take place in the USA. PLS is an abbreviation for Partial Least Squares and is also sometimes expanded as projection to latent structures. This is an approach for modeling relations between data matrices of different types of variables measured on the same set of objects. The twenty-two papers in this volume, which include three invited contributions from our keynote speakers, provide a comprehensive overview of the current state of the most

advanced research related to PLS and related methods. Prominent scientists from around the world took part in PLS 2012 and their contributions covered the multiple dimensions of the partial least squares-based methods. These exciting theoretical developments ranged from partial least squares regression and correlation, component based path modeling to regularized regression and subspace visualization. In following the tradition of the six previous PLS meetings, these contributions also included a large variety of PLS approaches such as PLS metamodels, variable selection, sparse PLS regression, distance based PLS, significance vs. reliability, and non-linear PLS. Finally, these contributions applied PLS methods to data originating from the traditional econometric/economic data to genomics data, brain images, information systems, epidemiology, and chemical spectroscopy. Such a broad and comprehensive volume will also encourage new uses of PLS models in work by researchers and students in many fields.

Data Mining: Practical Machine Learning Tools and Techniques, Third Edition, offers a thorough grounding in machine learning concepts as well as practical advice on applying machine learning tools and techniques in real-world data mining situations. This highly anticipated third edition of the most acclaimed work on data mining and machine learning will teach you everything you need to know about preparing inputs, interpreting outputs, evaluating results, and the algorithmic methods at the heart of successful data mining. Thorough updates reflect the technical changes and modernizations that have taken place in the field since the last edition, including new material on Data Transformations, Ensemble Learning, Massive Data Sets, Multi-instance Learning, plus a new version of the popular Weka machine learning software developed by the authors. Witten, Frank, and Hall include both tried-and-true techniques of today as well as methods at the leading edge of contemporary research. The book is targeted at information systems practitioners, programmers, consultants, developers, information technology managers, specification writers, data analysts, data modelers, database R&D professionals, data warehouse engineers, data mining professionals. The book will also be useful for professors and students of upper-level undergraduate and graduate-level data mining and machine learning courses who want to incorporate data mining as part of their data management knowledge base and expertise. Provides a thorough grounding in machine learning concepts as well as practical advice on applying the tools and techniques to your data mining projects Offers concrete tips and techniques for performance improvement that work by transforming the input or output in machine learning methods Includes downloadable Weka software toolkit, a collection of machine learning algorithms for data mining tasks—in an updated, interactive interface. Algorithms in toolkit cover: data pre-processing, classification, regression, clustering, association rules, visualization

Rapid, inexpensive, and easy-to-deploy, near-infrared (NIR) spectroscopy can be used to analyze samples of virtually any composition, origin, and condition. The Handbook of Near Infrared Analysis, Fourth Edition, explores the factors

necessary to perform accurate and time- and cost-effective analyses across a growing spectrum of disciplines. This updated and expanded edition incorporates the latest advances in instrumentation, computerization, chemometrics applied to NIR spectroscopy, and method development in NIR spectroscopy, and underscores current trends in sample preparation, calibration transfer, process control, data analysis, instrument performance testing, and commercial NIR instrumentation. This work offers readers an unparalleled combination of theoretical foundations, cutting-edge applications, and practical experience. Additional features include the following: Explains how to perform accurate as well as time- and cost-effective analyses. Reviews software-enabled chemometric methods and other trends in data analysis. Highlights novel applications in pharmaceuticals, polymers, plastics, petrochemicals, textiles, foods and beverages, baked products, agricultural products, biomedicine, nutraceuticals, and counterfeit detection. Underscores current trends in sample preparation, calibration transfer, process control, data analysis, and multiple aspects of commercial NIR instrumentation. Offering the most complete single-source guide of its kind, the Handbook of Near Infrared Analysis, Fourth Edition, continues to offer practicing chemists and spectroscopists an unparalleled combination of theoretical foundations, cutting-edge applications, and detailed practical experience provided firsthand by more than 50 experts in the field.

Ten chapters discuss key aspects of advanced PLS analysis and its practical applications, covering new guidelines and improvements in the use of PLS-PM as well as various individual topics.

Issues in Analysis, Measurement, Monitoring, Imaging, and Remote Sensing Technology: 2012 Edition is a ScholarlyEditions™ eBook that delivers timely, authoritative, and comprehensive information about Chromatography. The editors have built Issues in Analysis, Measurement, Monitoring, Imaging, and Remote Sensing Technology: 2012 Edition on the vast information databases of ScholarlyNews.™ You can expect the information about Chromatography in this eBook to be deeper than what you can access anywhere else, as well as consistently reliable, authoritative, informed, and relevant. The content of Issues in Analysis, Measurement, Monitoring, Imaging, and Remote Sensing Technology: 2012 Edition has been produced by the world's leading scientists, engineers, analysts, research institutions, and companies. All of the content is from peer-reviewed sources, and all of it is written, assembled, and edited by the editors at ScholarlyEditions™ and available exclusively from us. You now have a source you can cite with authority, confidence, and credibility. More information is available at <http://www.ScholarlyEditions.com/>.

Many of the papers in this proceedings volume were presented at the PASCAL Workshop entitled Subspace, Latent Structure and Feature Selection Techniques: Statistical and Optimization Perspectives which took place in Bohinj, Slovenia during February, 23–25 2005.

An overview of the computational issues; statistical, numerical, and algebraic properties, and new generalizations and applications of advances on TLS and EIV models. Experts from several disciplines prepared overview papers which were presented at the conference and are included in this book.

The International Conference on Intelligent Computing (ICIC) was formed to provide an annual forum dedicated to the emerging and challenging topics in artificial intelligence, machine learning, bioinformatics, and computational biology, etc. It aims to bring together researchers and practitioners from both academia and industry to share ideas, problems and solutions related to the multifaceted aspects of intelligent computing. ICIC 2008, held in Shanghai, China, September 15–18, 2008, constituted the 4th International Conference on Intelligent Computing. It built upon the success of ICIC 2007, ICIC 2006 and ICIC 2005 held in Qingdao, Kunming and Hefei, China, 2007, 2006 and 2005, respectively. This year, the conference concentrated mainly on the theories and methodologies as well as the emerging applications of intelligent computing. Its aim was to unify the picture of contemporary intelligent computing techniques as an integral concept that highlights the trends in advanced computational intelligence and bridges theoretical research with applications. Therefore, the theme for this conference was “Emerging Intelligent Computing Technology and Applications”. Papers focusing on this theme were solicited, addressing theories, methodologies, and applications in science and technology.

Extensive treatment of the most up-to-date topics Provides the theory and concepts behind popular and emerging methods Range of topics drawn from Statistics, Computer Science, and Electrical Engineering

This book constitutes the thoroughly refereed post-proceedings of the PASCAL (pattern analysis, statistical modelling and computational learning) Statistical and Optimization Perspectives Workshop on Subspace, Latent Structure and Feature Selection techniques, SLSFS 2005. The 9 revised full papers presented together with 5 invited papers reflect the key approaches that have been developed for subspace identification and feature selection using dimension reduction techniques, subspace methods, random projection methods, among others.

This handbook provides a comprehensive overview of Partial Least Squares (PLS) methods with specific reference to their use in marketing and with a discussion of the directions of current research and perspectives. It covers the broad area of PLS methods, from regression to structural equation modeling applications, software and interpretation of results. The handbook serves both as an introduction for those without prior knowledge of PLS and as a comprehensive reference for researchers and practitioners interested in the most recent advances in PLS methodology.

This volume brings together a broad array of scientific expertise to focus on the characterization and utilization of cellulosic materials. Researchers from Austria, Germany, Sweden, Japan, New Zealand, Australia, and the U.S. explore

many facets of the plant cell wall, from its fundamental structure and its manipulation via molecular biology to its application in composite materials. Exciting applications of near infrared spectroscopy, x-ray diffraction, confocal microscopy, and molecular coupling as a viscoelastic probe provide new insights into the ultrastructure and properties of cellulosic materials.

This book constitutes the refereed proceedings of the Chinese Conference on Pattern Recognition, CCPR 2012, held in Beijing, China, in September 2012. The 82 revised full papers presented were carefully reviewed and selected from 137 submissions. The papers are organized in topical sections on pattern recognition theory; computer vision; biometric recognition; medical imaging; image and video analysis; document analysis; speech processing; natural language processing and information retrieval.

A volume in the three-volume Remote Sensing Handbook series, Remote Sensing of Water Resources, Disasters, and Urban Studies documents the scientific and methodological advances that have taken place during the last 50 years. The other two volumes in the series are Remotely Sensed Data Characterization, Classification, and Accuracies, and Land Reso

Applications of Numerical Methods in Molecular Spectroscopy provides a mathematical background, theoretical perspective, and review of spectral data processing methods. The book discusses methods of complex spectral profile separation into bands, factor analysis methods, methods of quantitative analysis in molecular spectroscopy and reflectance spectroscopy, and new data processing methods. Mathematical methods in special areas of molecular spectroscopy, such as color science, electron spin resonance, and nuclear magnetic resonance spectroscopies are also covered. The book will benefit researchers and postgraduate students in fields of chemistry, physics, and biology.

Comprehensive Chemometrics, Second Edition features expanded and updated coverage, along with new content that covers advances in the field since the previous edition published in 2009. Subject of note include updates in the fields of multidimensional and megavariate data analysis, omics data analysis, big chemical and biochemical data analysis, data fusion and sparse methods. The book follows a similar structure to the previous edition, using the same section titles to frame articles. Many chapters from the previous edition are updated, but there are also many new chapters on the latest developments. Presents integrated reviews of each chemical and biological method, examining their merits and limitations through practical examples and extensive visuals Bridges a gap in knowledge, covering developments in the field since the first edition published in 2009 Meticulously organized, with articles split into 4 sections and 12 sub-sections on key topics to allow students, researchers and professionals to find relevant information quickly and easily Written by academics and practitioners from various fields and regions to ensure that the knowledge within is easily understood and

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This book presents an interdisciplinary overview on the most recent advances in QSAR studies. The first part consists of a comprehensive review of QSAR methodology. The second part highlights the interdisciplinary aspects and new areas of QSAR modelling.

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