Record Nr. UNINA9910874655003321 Autore Einbeck Jochen Titolo Developments in Statistical Modelling / / edited by Jochen Einbeck, Hyeyoung Maeng, Emmanuel Ogundimu, Konstantinos Perrakis Cham:,: Springer Nature Switzerland:,: Imprint: Springer,, 2024 Pubbl/distr/stampa **ISBN** 9783031657238 3031657233 Edizione [1st ed. 2024.] Descrizione fisica 1 online resource (281 pages) Collana Contributions to Statistics, , 2628-8966 Altri autori (Persone) MaengHyeyoung OgundimuEmmanuel PerrakisKonstantinos Disciplina 519.5 Soggetti **Statistics** Regression analysis Machine learning **Biometry** Statistical Theory and Methods Linear Models and Regression Bayesian Inference Statistical Learning **Biostatistics** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Monografia Livello bibliografico REML for two dimensional P splines -- Learning Bayesian networks Nota di contenuto from ordinal data The Bayesian way -- Latent Dirichlet allocation and hidden Markov models to identify public perception of sustainability in social media data -- Bayesian approaches to model overdispersion in Spatio temporal binomial data -- Elicitation of priors for intervention effects in educational trial data -- Elicitation of priors for intervention effects in educational trial data -- Optimism correction of the AUC with complex survey data -- Statistical models for patient centered

outcomes in clinical studies -- Bayesian hidden Markov models for early warning -- A Bayesian Markov-switching for smooth modelling of

extreme value distributions.

## Sommario/riassunto

This volume on the latest developments in statistical modelling is a collection of refereed papers presented at the 38th International Workshop on Statistical Modelling, IWSM 2024, held from 14 to 19 July 2024 in Durham, UK. The contributions cover a wide range of topics in statistical modelling, including generalized linear models, mixture models, regularization techniques, hidden Markov models, smoothing methods, censoring and imputation techniques, Gaussian processes, spatial statistics, shape modelling, goodness-of-fit problems, and network analysis. Various highly topical applications are presented as well, especially from biostatistics. The approaches are equally frequentist and Bayesian, a categorization the statistical modelling community has synergetically overcome. The book also features the workshop's keynote contribution on statistical modelling for big and little data, highlighting that both small and large data sets come with their own challenges. The International Workshop on Statistical Modelling (IWSM) is the annual workshop of the Statistical Modelling Society, with the purpose of promoting important developments, extensions, and applications in statistical modelling, and bringing together statisticians working on related problems from various disciplines. This volume reflects this spirit and contributes to initiating and sustaining discussions about problems in statistical modelling and triggers new developments and ideas in the field.