

Seminar Statistik in der Toxikologie

- Seminarvortrag

- Basiert auf Teil eines Buchkapitels oder/und wissenschaftlichen Artikeln
- Regeln/Vorgaben in der Vorbesprechung
- Dauer des Vortrags 45 Minuten

- Bericht

- Schriftliche Ausarbeitung des Methodenteils des Vortrags als Seminarbericht

Seminar Statistik in der Toxikologie

- Wintersemester 2018/19
- Dienstag, 10:15-11:45, M/E 27
- Start: 09.10.2018
- Homepage:
<https://www.statistik.tu-dortmund.de/genetik-ts1819.html>
- Vorberechnung:
Mittwoch, 18.07., 16:00 Uhr in M 217b

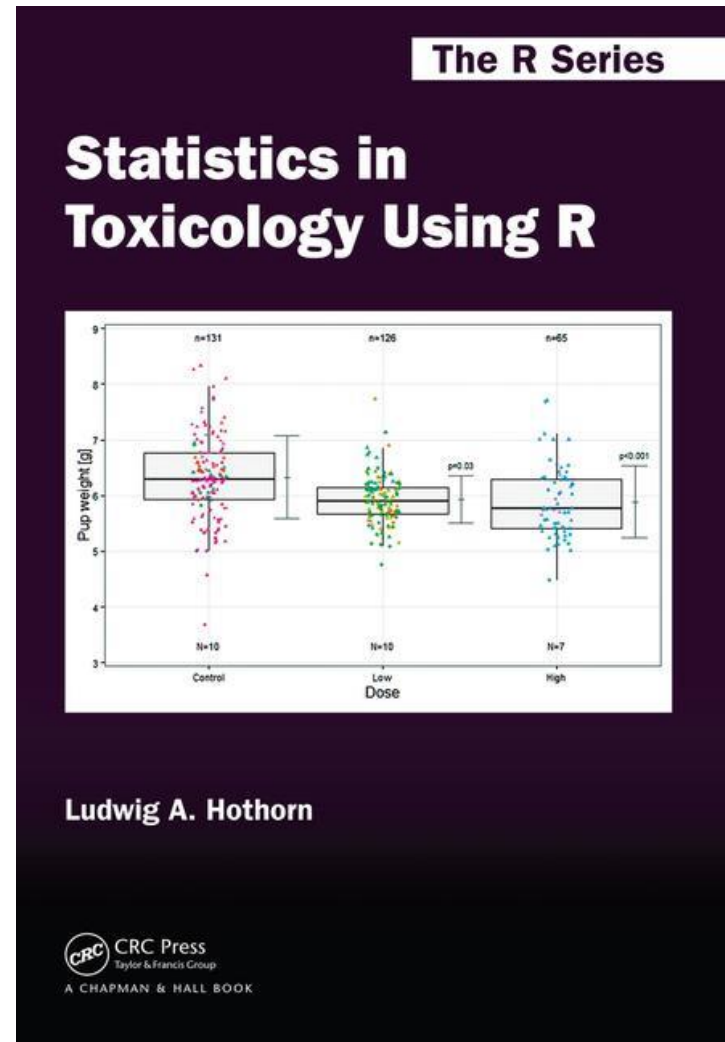
Seminar Statistik in der Toxikologie

Statistics in Toxicology Using R

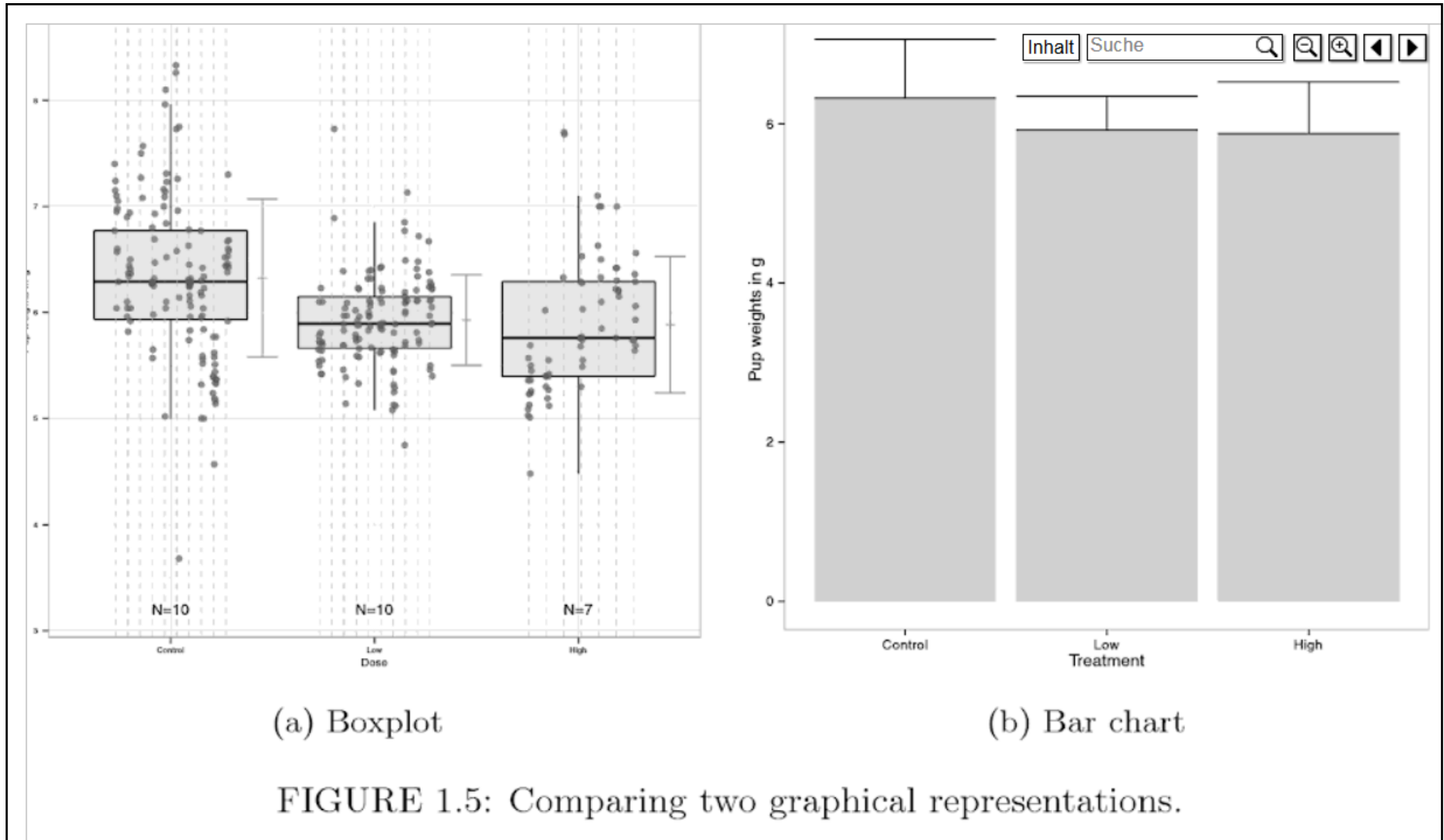
Ludwig A. Hothorn

<https://www.crcpress.com/Statistics-in-Toxicology-Using-R/Hothorn/p/book/9781498701273>

- Short-term repeated toxicity studies
- Long-term carcinogenicity assays
- Studies on reproductive toxicity
- Mutagenicity assays
- Toxicokinetic studies



Graphische Darstellungen

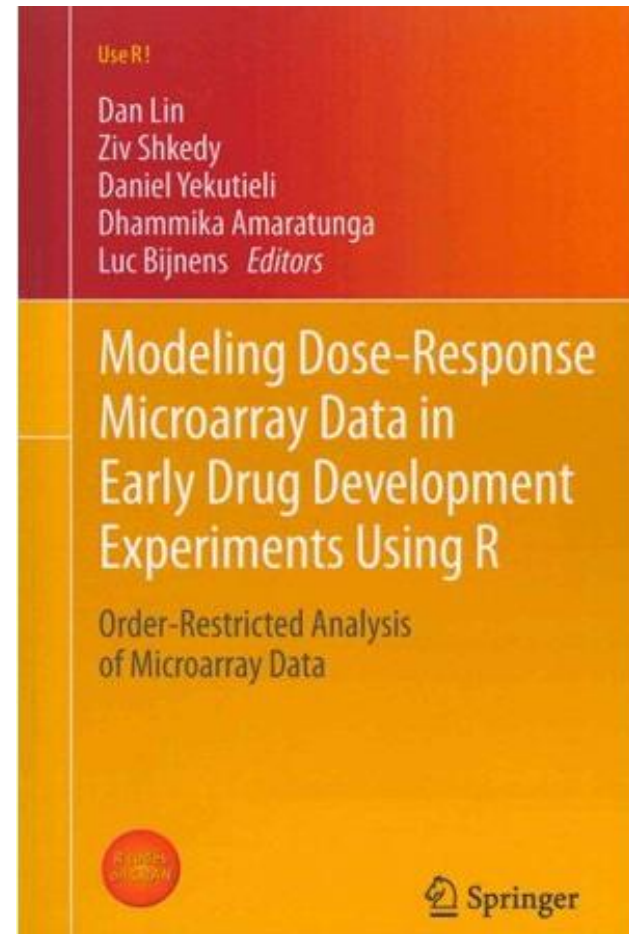


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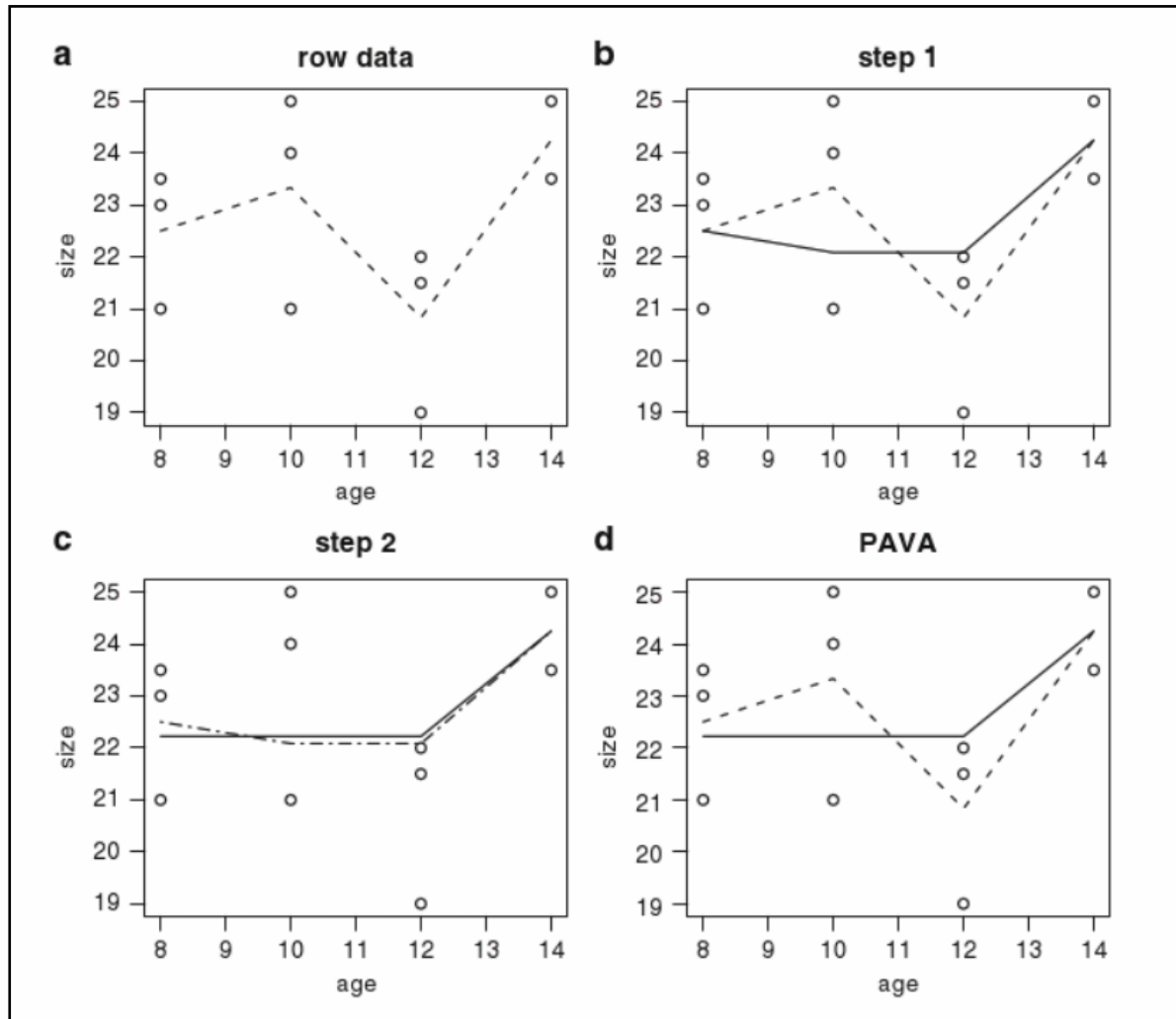
Modeling Dose-Response
Microarray Data in Early Drug
Development Experiments
Using R:
Order-Restricted Analysis of
Microarray Data

Dan Lin, Ziv Shkedy, Daniel
Yekutieli, Dhammika
Amaratunga, and Luc Bijmens

[https://www.springer.com/de
/book/9783642240065](https://www.springer.com/de/book/9783642240065)

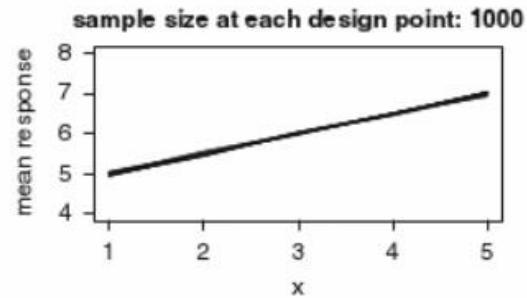
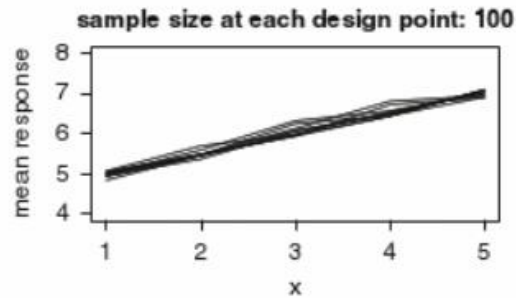
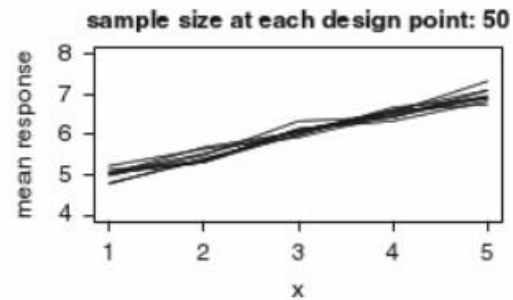
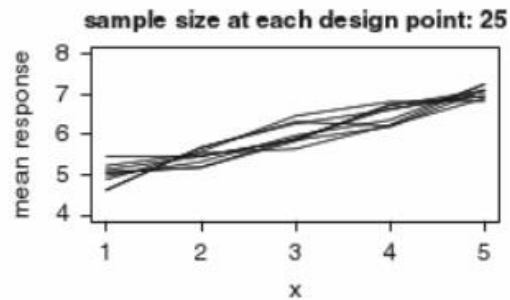
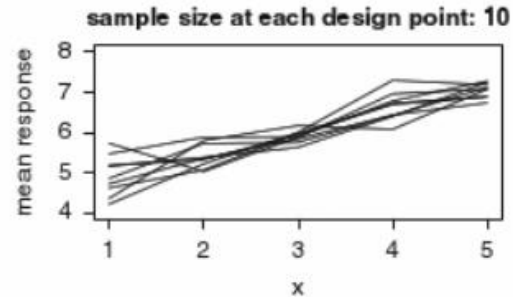
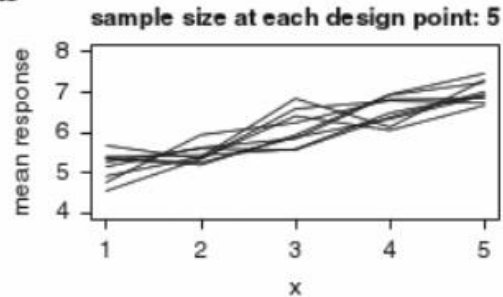


Isotonische Regression



Stichprobengröße

b



PART 1
Introduction

Chapter 2
Estimation

Chapter 3
Inference

Chapter 4
Nonlinear modeling

PART 2
Dose-response microarray experiments

Chapter 5
Introduction

Chapter 6
Multiplicity

Chapter 7
SCT

Chapter 8
SAM (SCT)

Chapter 13
Bayesian models

SCT for simple
order alternatives

Classification SCT for simple
and clustering order alternatives

Multiple
contrast tests

Chapter 7
SCT

Chapter 8
SAM (SCT)

Chapter 13
Bayesian models

Chapter 9
Clustering (I)

Chapter 10
Clustering (II)

Chapter 11
ORIOGEN/ORICC

Chapter 15
MCT

Chapter 16
MCT-ratios

Chapter 17
FDR-C.I.s

Chapter 14
Model based
approaches

Chapter 12
Gene set analysis

Chapter 18
Software

Vorträge

09.10.	1. Principles (Kap 1, H.)	<ul style="list-style-type: none"> - Sample size (simulation) - Pairwise confidence intervals 	Christiane Domche BA
09.10.	2. Proof of hazard using simultaneous comparisons, normally distributed endpoint (Kap 2, H., 25-38)	<ul style="list-style-type: none"> - Dunnett/Williams-type procedures 	Felicitas Herholz BA
16.10.	3. Proof of hazard using simultaneous comparisons, proportions (Kap 2, H., 39-48)	<ul style="list-style-type: none"> - Mixed effects model 	Jessica Jeske BA
16.10.	4. Proof of hazard using simultaneous comparisons, trend tests (for proportions) (Kap 2, H., 48-52, 67-71)	<ul style="list-style-type: none"> - Trend tests - Cochran-Armitage trend test 	Katrin Rieger BA
23.10.	5. Long-term carcinogenicity assays (Kap 3, H.)	<ul style="list-style-type: none"> - Kaplan-Meier - Williams-type tests for survival data 	Lennard Sauer MA
06.11.	6. Mutagenicity assays (Kap 4, H., overview and 4.12)	<ul style="list-style-type: none"> - Mixing distributions, cluster analysis 	Veronika Schmidt MA
13.11.	7. Estimation under order restrictions (Kap 2, L.)	<ul style="list-style-type: none"> - Isotonic regression, PAVA 	Pia von Kolken BA
13.11.	8. Nonlinear Modeling of Dose-Response Data (Kap 4, L.)	<ul style="list-style-type: none"> - Nonlinear modelling, - 4PL model, Emax model 	Hannah Heckmann BA

Vorträge

20.11.	Adjustment for Multiplicity (Kap 6, L.)	<ul style="list-style-type: none"> - Multiple testing, - adjustment 	Christopher Blüggel MA
27.11.	Classification of monotone profiles (Kap 9, L.)	<ul style="list-style-type: none"> - δ-Clustering 	Tobias Schipp BA
11.12.	Beyond the Simple Order Alternatives (Kap 11, L.)	<ul style="list-style-type: none"> - ORICC Clustering 	Ina-Marie Berendes MA
18.12.	Estimation and Inference Under Simple Order Restrictions: Hierarchical Bayesian Approach (Kap 13, L.)	<ul style="list-style-type: none"> - Bayes - MCMC 	Ludger Sandig BA
08.01.	Gene set analysis (Kap 12, L.)	<ul style="list-style-type: none"> - MLP method - Gene set enrichment 	Sophia Praeger MA
15.01.	Model-based approaches (Kap 14, L.)	<ul style="list-style-type: none"> - Model selection 	Anna Fischer MA
22.01.	MCPMOD (Multiple Comparison Procedure – Modelling)	<ul style="list-style-type: none"> - Model selection 	Julia Duda MA
29.01.	Schlussbesprechung		