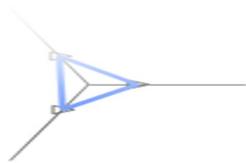
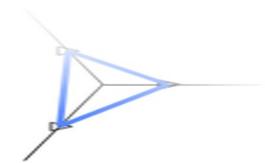
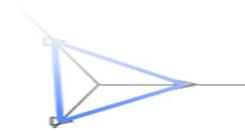
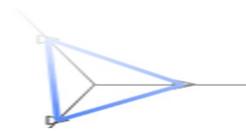


Multivariate Statistik

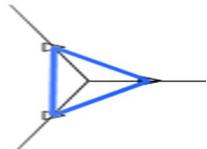
Heiko Großmann
Wintersemester 2024/25



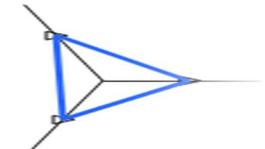
Observation 1



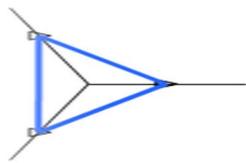
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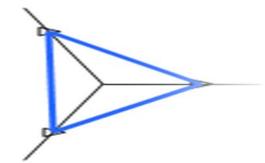
Observation 6



Observation 10

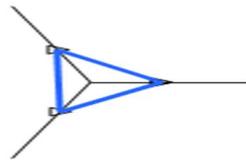


Observation 11



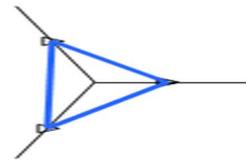
Observation 15

Observation 12



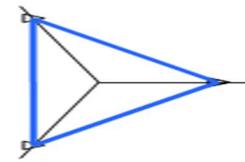
Observation 17

Observation 13

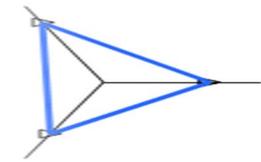


Observation 18

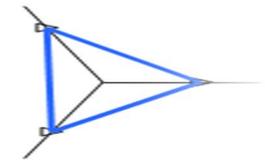
Observation 14



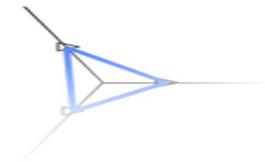
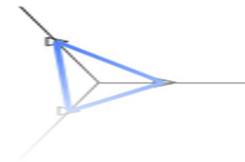
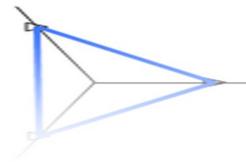
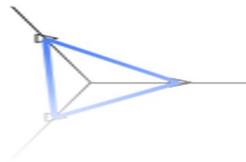
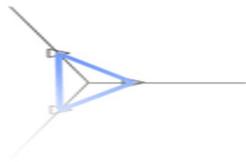
Observation 19



Observation 16

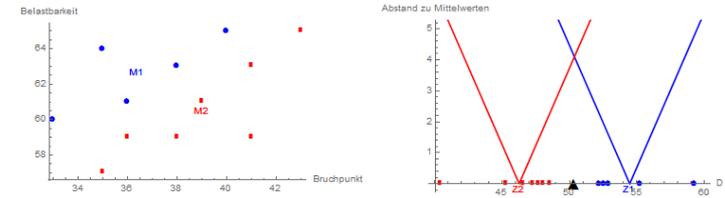


Observation 20



Inhalt

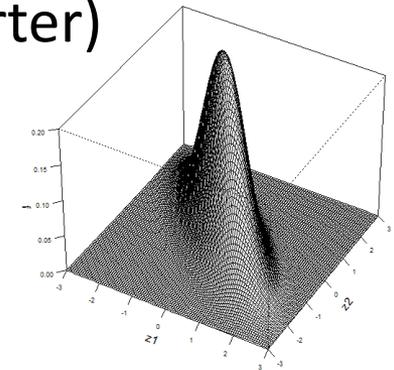
Multivariat					
Hotellings T ² -Test					
Variable	Mittelwert	Hypothetischer Mittelwert	Prüfgröße	F-Wert	Wahrsch. > F
Gewicht	8,6866	10,0000	34,7107	16,6322	0,0000
Länge	68,4000	70,0000			



- Statistische Analyse mehrdimensionaler (korrelierter) Beobachtungen

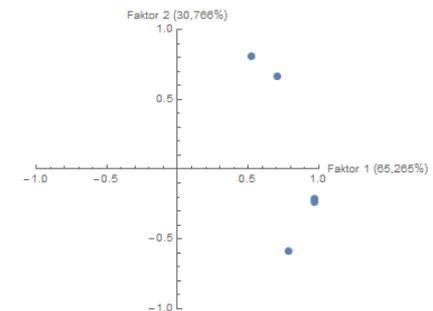
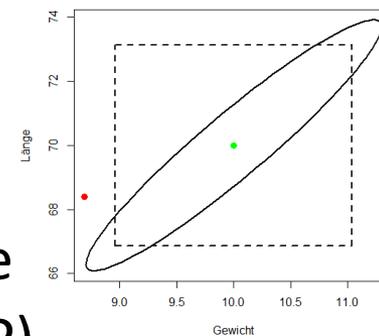
- Themen

- Grundlagen: multivariate Deskription, mehrdimensionale Normalverteilung
- Ein- und Zwei-Stichproben Tests (Hotelling's T²)
- Multivariates Lineares Modell (z.B. MANOVA)
- Hauptkomponentenanalyse
- Faktorenanalyse
- Diskriminanzanalyse
- Clusteranalyse
- ...



- Betonung angewandter Aspekte

- Illustration mit Software (R, JMP)



Organisatorisches

- Ablauf
 - Vorlesung (mit integrierter Übung): 4 SWS
 - Literatur: Skript, Johnson & Wichern (2002), Rencher (2002)
- Zielgruppe
 - Statistik Master WPF (Methodik oder Spezialisierung)
 - Mathematik Master WPF
- Vorkenntnisse:
 - Statistische Grundkenntnisse
 - Nützlich: Lineare Statistische Modelle
- Masterarbeiten im Anschluss möglich