

Beginner's Day

The geometric morphometric workflow

F.J. ROHLF, D.E. SLICE

Summer School

Lectures, demonstrations and practical analysis training

F.L. BOOKSTEIN, P. GUNZ, S. KATINA, P. MITTEROECKER, F.J. ROHLF, D.E. SLICE

Sun, July 6

9:00

Welcome (WEBER, BOOKSTEIN, SCHAEFER)

09:30

Definitions, history, data acquisition
(D.E. SLICE)

11:00 *Coffee break/registration*

11:30

Shape coordinates, Procrustes
superimposition, shape spaces (F.J. ROHLF)

13:00 *Lunch/registration*

14:00

Matrix algebra, multivariate statistics
(D.E. SLICE, F.J. ROHLF)

15:30 *Coffee break/registration*

16:00

Outlines, alternative methods,
software demonstration
(F.J. ROHLF, D.E. SLICE)

19:00

Summer School Welcome Dinner
"Plutzerbraeu", Schrankgasse 2
1070 Wien

Mon, July 7

9:00

Morning lectures: Fundamental strategies (F.L. BOOKSTEIN)

Singular value decomposition & principal coordinates

The Procrustes superpositions, Procrustes distances & Procrustes shape coordinates

What might your data analysis look like?

10:30 *Coffee break/registration*

11:00

Group training in R relating to lecture topics
(S. KATINA)

12:30 *Lunch*

13:30

Semilandmark track

Why the sliding landmarks go there
(F.L. BOOKSTEIN)

15:00 *Coffee break*

15:30-17:00

Afternoon lectures: Multivariate analysis and shape understanding

Form space (P. MITTEROECKER)

Thin-plate splines & missing landmarks (P. GUNZ)

17:15 *Questions & answers*

19:00

Natural History Museum, Burgring 7, 1010 Wien
MARIA TESCHLER-NICOLA shows
Anthropological treasures

11:00

*Open lab**

Individual training (all INSTRUCTORS)

13:30

*Open lab**

Individual training
(all INSTRUCTORS)

Summer School

Lectures, demonstrations and practical analysis training

F. L. BOOKSTEIN, P. GUNZ, S. KATINA, P. MITTEROECKER, F. J. ROHLF, D. E. SLICE

Tue, July 8

9:00

Morning lectures:

Biological factors in morphometric data: The standard multivariate tools
Identification & classification (F. J. ROHLF)

10:30 *Coffee break*

11:00

Group training in R
relating to lecture topics
(S. KATINA)

11:00

*Open lab**
Individual training
(all INSTRUCTORS)

12:30 *Lunch*

13:30

Semilandmark track
Structure & function of templates
(F.L. BOOKSTEIN)

13:30

*Open lab**
Individual training
(all INSTRUCTORS)

15:00 *Coffee break*

15:30-17:00

Afternoon lectures: Biological factors in morphometric data *cont.*
Regression & allometry (P. GUNZ)
Heterochrony & ontogenetic trajectories (P. MITTEROECKER)

17:15 *Questions & answers*

Wed, July 9

9:00

Morning lectures: Integration & modularity:

Developmental instability: Asymmetry and its components
(K. SCHAEFER, D.E. SLICE)
Integration: Partial least squares (P. MITTEROECKER)

10:30 *Coffee break*

11:00

Group training in R
relating to lecture topics
(S. KATINA)

11:00

*Open lab**
Individual training
(all INSTRUCTORS)

12:30 *Lunch*

13:30

Semilandmark track
Semilandmarks and asymmetry
(F.L. BOOKSTEIN)

13:30

*Open lab**
Individual training
(all INSTRUCTORS)

15:00 *Coffee break*

15:30-17:00

Afternoon lectures: Reporting an analysis
Localization & character construction (F.L. BOOKSTEIN)
Deformation & visualization in 3D (P. GUNZ & P. MITTEROECKER)

17:15 *Questions & answers*

19:00

Symposium Welcome Event
"Servitenstueberl", Servitengasse 7
1090 Wien

9:00 *Welcome by G. W. WEBER & K. SCHAEFER*

9:05 *introduced by D.E. SLICE:*

Statistical Modeling of Shape and Appearance as a Chance to Understand Interactions between Geometry and Function

Rainer SCHUBERT (University for Health Sciences, Medical Informatics & Technology, Hall, AUT)

10:15 *Coffee break*

10:45 *introduced by P. GUNZ:*

Modeling Primate Cranial Form and Function

Paul O'HIGGINS (Hull York Medical School, University of York, U.K.)

12:00 *Lunch*

13:15 *introduced by G. W. WEBER:*

Biology Clearly Needs Morphometrics: Does Morphometrics Need Biology?

Charles OXNARD (School of Anatomy & Human Biology, The University of Western Australia, Crawley, AUS)

14:30 *Coffee break*

15:00 *introduced by H. PROSSINGER:*

Evolutionary Genetics and Morphology

James F. CHEVERUD (Washington University School of Medicine, St. Louis, U.S.)

16:15 *Break*

16:30 *introduced by F.J. ROHLF:*

What it Means to Say that Geometric Morphometrics is a Biomedical Methodology

Fred L. BOOKSTEIN (University of Vienna, and University of Washington, Seattle, U.S.)

17:30

Panel *headed by F.J. ROHLF, closing remarks by F.L. BOOKSTEIN & K. SCHAEFER*

Wed, July 9

19:00

Symposium Welcome Event

"Servitenstueberl", Servitengasse 7

1090 Wien

19:00

Symposium Heuriger (Viennese winery)

"Schuebel-Auer", Kahlenbergerstr. 22

1190 Wien/Nussdorf