Turin 2009 Geometrics Morphometrics Workshop

Turin University

31 August-2 September 2009

Geometric morphometrics is a set of statistical tools for the analysis and visualization of morphological variation. For its power it has been considered a 'revolution' in the field of morphometrics. The number of scientific papers using geometric morphometrics has increased exponentially over the last couple of decades. Geometric morphometric analyses have been successfully performed in a variety of disciplines ranging from taxonomy, palaeontology and evodevo to forensics, ergonomics and archaeology.

A short course in geometric morphometrics will be held at Turin University from August 31st to September 2nd 2009, immediately after the end of the ESEB 2009 meeting. The workshop will cover both introductory and more advanced topics. Lectures and practicals will be given by Chris Klingenberg (University of Manchester, UK) and Andrea Cardini (Università di Modena e Reggio Emilia, Italy, and the Hull York Medical School, UK).

WORKSHOP PROGRAM

a) INTRODUCTORY TOPICS
- Introduction on morphometrics: the analysis of size and shape variation in organisms.
- Landmark-based geometric morphometrics: data collection; computation of size and shape variables using the generalized Procrustes analysis.
- Summary and visualizartion of shape variation: principal component analysis and thin plate spline deformation grids.
- Statistical testing: an example using permutation tests for mean size and mean shape differences of two samples.

b) ADVANCED TOPICS
- Test for measurement error.
- Analysis of symmetric structures.
- Phylogenetic generalized least square.

c) STUDENTS PRESENTATIONS
- Participants who are willing to try their own analysis on their study data or the example files provided by the instructors will be given the possibility to briefly show their work in a short (5 min.) presentation.

A registration fee of 100 euros is requested to cover the costs of the workshop organization. Participants will have to provide accomodations, meals etc. by themselves. Software and example data will be avaialable for participants to practice and try their own analyses.

The total numer of participants is limited to 25. A request of pre-booking should be sent to Prof. Claudia Palestrini, Dipartimento di Biologia Animale, Università degli Studi di Torino, via Accademia Albertina 13, Turin, Italy (claudia.palestrini@unito.it) before 30 April 2009. Participants

will be accepted following a strict booking order. After booking confirmation you will be requested to pay the registration fee (more information on this will be provided directly by Prof. Claudia Palestrini).

Please, if you are interested to participate, send your pre-booking request as soon as possible. We look forward to meeting you in Turin.