

Vertebrates Limb Geometry in the Simplex space

¹Rodrigues, L., ²Daunis-i-Estadella, J., ²Mateu-Figueras, G., ²Thio-Henestrosa, S.

¹Natural History Museum, Rua da Escola Politécnica, 58,P-1250-102 Lisboa,
PORTUGAL,lmrodrigues@fc.ul.pt

²Dept. d'Informàtica i Matemàtica Aplicada, Universitat de Girona

A novel metric comparison of the appendicular skeleton (fore and hind limb) of different vertebrates using the Compositional Data Analysis (CDA) methodological approach it's presented.

355 specimens belonging in various taxa of *Dinosauria* (*Sauropodomorpha*, *Theropoda*, *Ornithischia* and *Aves*) and *Mammalia* (*Protheria*, *Metatheria* and *Eutheria*) were analyzed with CDA.

A special focus has been put on *Sauropodomorpha* dinosaurs and the Aitchinson distance has been used as a measure of disparity in limb elements proportions to infer some aspects of functional morphology.