Vertebrates Limb Geometry in the Simplex space

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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.