1015-35-326   **Darryl D Holm*** (`d.holm@imperial.ac.uk`), Mathematics, Imperial College, London, England.
Soliton Dynamics in Computational Anatomy.

Computational Anatomy (CA) has introduced the idea of graphical structures being transformed by geodesic deformations on groups of diffeomorphisms. In particular, the template matching approach involves Riemannian metrics on the diffeomorphism group and employs their projections onto specific landmark shapes, or image spaces. A singular momentum map provides an isomorphism between landmarks (and outlines) for images and singular soliton solutions of the geodesic equation. This isomorphism suggests a new dynamical paradigm for CA, as well as a new data representation (Received February 08, 2006)