Sideways Stepping

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Abstract

We analyse vector fields, where only the normal component is known. Examples of such fields are: optical flow fields and warps of signed distance maps. We propose to model the tangential component by minimizing an general energy functional of the total field, and we present a novel iterative solution based on Euler-Lagrange equations. Possible applications are estimating physical flow in image sequences, estimating human growth processes, and co-warping textures in animation sequences.