

Problems

Non-rigid Correspondence and Calculus of Shapes Numerical geometry of non-rigid shapes

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1. (Research question) Elaborate a way to transfer bump maps and normal displacement maps using the the correspondence-based texture transfer technique.
2. (Research question) Devise a self-intersection free morphing technique, which given two ϵ -isometric surfaces X and Y , guarantees that all intermediate meshes are $c\epsilon$ -isometric to X or Y .
3. Does the guaranteed self-intersection free morph guarantee valid shapes for $t < 0$ or $t > 1$?