DESIGNING TRANSFORMATIONS WITH SIMPLE INGREDIENTS

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When we deign curves and surfaces with computer, it is enough to specify a small number of control points and parameters. Can we design transformations just as simply? I will propose a method to generate non-linear transformations from small input data which can be easily specified by the user. I will demonstrate this technique by applying it to character animation and shape modelling. Most of the codes used in the demonstration are available at my github repository [1].

References

[1] `https://github.com/shizuo-kaji`

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[4] S. Kaji and H. Ochiai, *A concise parametrisation of affine transformation*, to appear in SIAM J. on Imaging Sciences, arXiv:1507.05290

[5] G. Matsuda, S. Kaji, and H. Ochiai, *Anti-commutative Dual Complex Numbers and 2D Rigid Transformation*, Mathematical Progress in Expressive Image Synthesis I, pp. 131–138, Springer-Japan, 2014, arXiv:1601.01754