Texture Transfer Using Geometry Correlation: Supplementary Material

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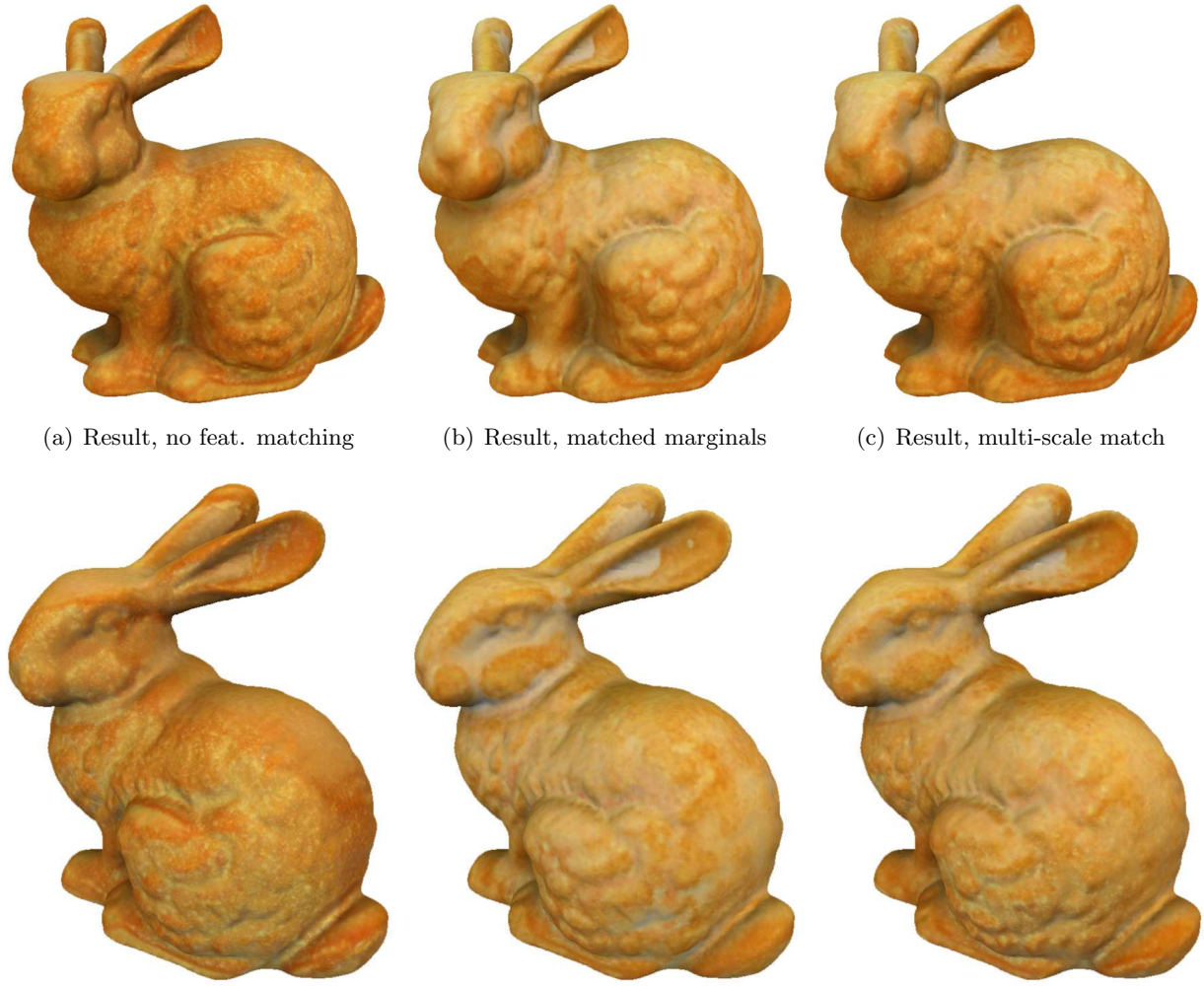
1 Non-parametric Versus Parametric Synthesis

Figure 1 shows a comparison of non-parametric vs. parametric synthesis. The first 2 rows show cases in favor of using non-parametric synthesis, i.e. a structured texture with slowly varying correlation. The parametric method is not able to reproduce the texture faithfully. In the last 2 rows, we see examples with strongly correlated texture. The texture is locally very simple, but follows the geometry more closely, thereby creating rapid variations. Contrary to the parametric version, the non-parametric one produces an inconsistent result in this case: the overall brightness is off, texture is inconsistent with the input and correlation is lost. In addition, the parametric version is roughly an order of magnitude faster. We used the following parameters for non-parametric synthesis: 5×5 neighborhoods, coherence parameter is 1.0 and the feature and texture weights are the same.

2 Feature Matching

Figure 9 in the paper shows the importance of feature matching. Here, we show the same transfers under more aesthetically pleasing illumination.

Figure 1: Comparison of non-parametric versus parametric synthesis.



(a) Result, no feat. matching (b) Result, matched marginals (c) Result, multi-scale match

(d) Result, no feat. matching (e) Result, matched marginals (f) Result, multi-scale match

Figure 2: Importance of feature matching. Alternative renderings of the models in figure 7 in paper. We used more natural illumination in this version. The top and bottom row are rendered with the same illumination but with different view points.