

Publication

A Parametric Freckle Model for Faces

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We propose a novel stochastic generative parametric freckle model for the analysis and synthesis of human faces. Morphable Models are the state-of-the-art generative parametric face models. However, they are unable to synthesize freckles which are part of atural face variation. The deficiency lies in requiring point-to-point correspondence on the texture pixels. We propose to assume a correspondence between freckle density and not the freckles themselves. We propose a model that is stochastic, generative, and parametric and generates freckles with a point process according to a density and size distribution. The resulting model can synthesize photo-realistic freckles according to observations as well as add freckles to existing faces. We create more realistic faces than with Morphable Models alone and allow for detailed face pigment analysis.

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