Errata for All-Frequency Precomputed Radiance Transfer using Spherical Radial Basis Functions and Clustered Tensor Approximation

Yu-Ting Tsai   Zen-Chung Shih

Department of Computer Science, National Chiao Tung University, Taiwan

This document lists the errata for the ACM SIGGRAPH 2006 paper "All-Frequency Precomputed Radiance Transfer using Spherical Radial Basis Functions and Clustered Tensor Approximation". The differences are highlighted in red boldface.

1. Equation 5 in Section 4.1 should be

$$\left(G^{Abel} *_m H^{Abel}\right)(\xi_g \cdot \xi_h; \lambda_g, \lambda_h) = \boldsymbol{\omega_m} \frac{1 - (\lambda_g \lambda_h)^2}{\left[1 - 2(\lambda_g \lambda_h)(\xi_g \cdot \xi_h) + (\lambda_g \lambda_h)^2\right]^{3/2}}.$$

2. Equation 26 in Appendix A should be

$$I_\nu(x) = \frac{\left(\frac{1}{2}x\right)^\nu}{\Gamma\left(\nu + \frac{1}{2}\right)\Gamma\left(\frac{1}{2}\right)} \int_{-1}^1 e^{\pm xz}\left(1 - z^2\right)^{\nu - \frac{1}{2}} dz.$$

In fact, this is not a real error, but the above equation would better reveal the relations among Equations 6, 25, and 26.

3. Equation 27 in Appendix A should be

$$\left(G^{Gau} *_2 H^{Gau}\right)(\xi_g \cdot \xi_h; \lambda_g, \lambda_h) = 4\pi \boldsymbol{e^{-(\lambda_g + \lambda_h)}} \frac{\sinh\left(\|r\|\right)}{\|r\|}.$$

4. Reference [De Lathauwer et al. 2000] should be

DE LATHAUWER, L., DE MOOR, B., AND VANDEWALLE, J. 2000. On the Best Rank-1 and Rank-$(R_1, R_2, \ldots, R_n)$ Approximation of Higher-Order Tensors. *SIAM* *Journal on Matrix Analysis and Applications 21*, 4, 1324–1342.