

Fast Capture of Spectral Image Series - Errata

Sebastian Merzbach^{*1}, Michael Weinmann^{†1}, Martin Rump^{‡2}, and Reinhard Klein^{§1}

¹Institute of Computer Science II, University of Bonn, Friedrich-Ebert-Allee 144, 53113, Bonn, Germany

²X-Rite, Inc., 4300 44th St. SE, Grand Rapids, USA

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Unfortunately the following errors remained unnoticed until after the publication of our original publication. In equation (1) the spectral constraints $\sum_{i=1}^K \left\| \sum_{p \in P_S} F_i(p) (S_{b_i}(p) - D_{b_i}(p)) \right\|^2$ should be defined over a subset P_S of the set of all pixels P . It is not necessary to have a spectral constraint for each pixel of the reconstruction, as the RGB constraints and our smoothness regularization with similar pixels allow reconstructing the missing spectral information. So all in all, our energy function should be formulated as follows:

$$\begin{aligned} E(S) &= \alpha \sum_{i=1}^K \left\| \sum_{p \in P_S} F_i(p) (S_{b_i}(p) - D_{b_i}(p)) \right\|^2 \\ &+ \beta \sum_{p \in P} \|CS(p) - R(p)\|^2 \\ &+ \gamma \sum_{p \in P} \sum_{n \in N_p} \|S(p) - S(n)\|^2, \end{aligned} \tag{1}$$

where P is the set of all pixels, P_S is the set of pixels where we measured at least one spectral band image.

*merzbach@cs.uni-bonn.de

†mw@cs.uni-bonn.de

‡mrump@xrite.com

§rk@cs.uni-bonn.de