# A Robust Framework to Estimate Surface Color from Changing Illumination

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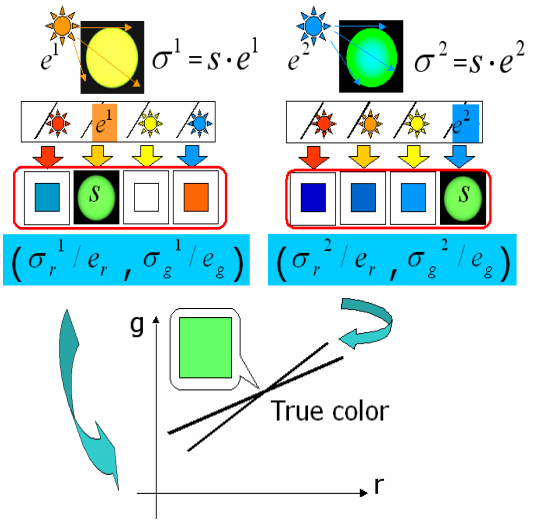
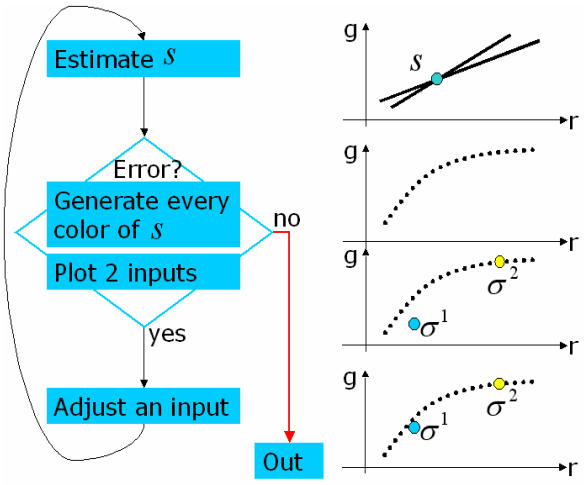
The purpose of color constancy algorithms is to estimate the illumination color reflected from an object and then eliminate it, making the color of the object appearance identical to the object actual color. To accomplish the purpose, we have developed a color constancy algorithm which is extended from Finlayson et al's algorithm. By combining varying illumination constraint, Planckian locus which represents natural lights' color, and noise analysis, we successfully made the algorithm more robust for natural images.

**Publication**

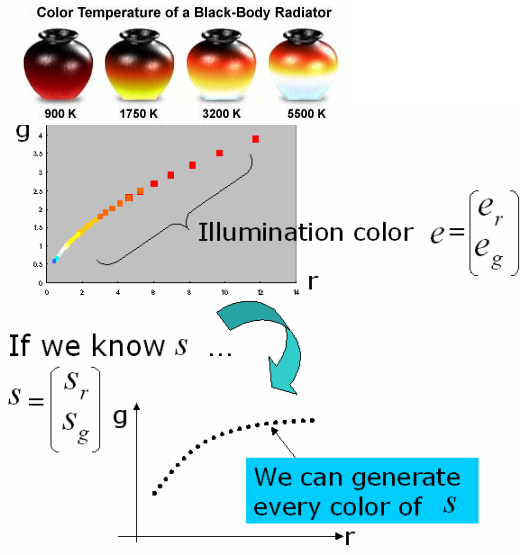
1. R. Kawakami, R. T. Tan, and K. Ikeuchi, ``A Robust Framework to Estimate Surface Color from Changing Illumination," Proc. of 2004 , ACCV, Jan., 2004



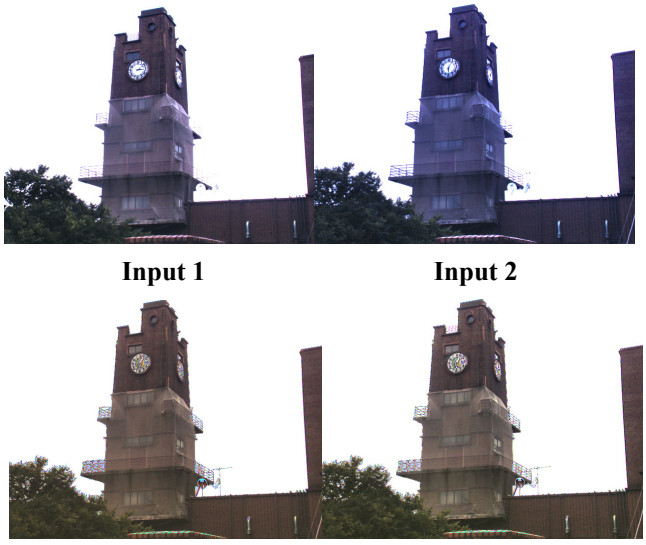

**Estimate true color by Finlayson et al's method**




**Error detection algorithm**




**Make use of Plancikan locus**



**Input 1** **Input 2**

**Our estimation** **True value**

**Experimental result**