

The principle of consistency of estimates in the problem of identification of color reproduction models

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Abstract

A general statement of the problem of identifying color rendering models is provided. For linear models, an identification method based on the principle of consistency of estimates is described. A reduced search procedure using genetic optimization algorithms is proposed. A comparison with a complete enumeration of options is performed.

Keywords: color reproduction, linear model, identification method, genetic optimization.

Citation: Nikonorov AV, Popov SB, Fursov VA. The principle of consistency of estimates in the problem of identification of color reproduction models. Computer Optics 2002; 24: 148-151.

[Access full text \(in Russian\)](#)

References

- [1] Judd DB, Wyszecki G. Color in business, science, and industry. 3rd ed. Wiley-Interscience; 1975.
- [2] Shashlov BA. Color and color reproduction [In Russian]. Moscow: "Mir Knigi" Publisher; 1995.
- [3] Fursov VA. Identification of models of imaging systems for the small number of observations [In Russian]. Samara: SSAU Publisher; 1998.
- [4] Fursov VA. Problems of evaluation based on the small number of observations. Proceedings of the International Conference "Mathematical Modeling" 2001: 56-63.
- [5] Nikonorov AV, Popov SB. Comparative analysis of color formation models for offset multi-color printing [In Russian]. Computer Optics 2002; 23: 79-83.
- [6] Nikonorov AV, Popov SB, Fursov VA. Identifying color reproduction models [In Russian]. Proc 6th International Conference "Pattern Recognition and Image Analysis: New Information Technologies" 2002: 431-436.