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| 1. Record Nr. | UNINA9910877651403321 |
| Autore | Morovic Jan <1974-> |
| Titolo | Color gamut mapping // Jan Morovic |
| Pubbl/distr/stampa | Chichester, England ; ; Hoboken, NJ, : John Wiley & Sons, c2008 |
| ISBN | 1-281-84095-5 9786611840952 0-470-75892-9 0-470-75893-7 |
| Descrizione fisica | 1 online resource (320 p.) |
| Collana | Wiley-IS&T series in imaging science and technology |
| Disciplina | 686.2/3042 |
| Soggetti | Color display systems Color separation - Data processing |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Description based upon print version of record. |
| Nota di bibliografia | Includes bibliographical references (p. [265]-280) and index. |
| Nota di contenuto | Color Gamut Mapping; Contents; Foreword; Series Preface; Preface; 1. Introduction; 1.1 What is Color Gamut Mapping?; 1.2 Historical Context of Gamut Mapping; 1.3 Who is this Book for?; 1.4 What is in the Rest of the Book?; 2. Basics of Color Science; 2.1 What is Color?; 2.2 Describing Color Experiences; 2.3 The Color Ecosystem; 2.4 The Human Visual System; 2.5 Physical Color-related Properties; 2.6 Colorimetry; 2.7 Color Ecosystem Interactions; 2.8 Digital Color Capture and Generation; 2.9 Color Management; 2.10 What can Affect the Appearance of a Pair of Stimuli?; 2.11 Summary 3. Desired Color Reproduction Properties and their Evaluation 3.1 Color Reproduction Framework; 3.2 Desired Color Reproduction Properties; 3.3 Evaluating Reproductions; 3.4 Case Study: Evaluating Printed Reproductions of a Displayed Image; 3.5 Summary; 4. Color Reproduction Data Flows; 4.1 Device Color Spaces; 4.2 Conceptual Stages of Color Reproduction; 4.3 Closed-loop Color Management; 4.4 sRGB Color Management; 4.5 ICC Color Management; 4.6 Windows Color System Color Management; 4.7 Importance of Gamut Mapping in Color Reproduction; 4.8 Summary; 5. Overview of Gamut Mapping; 5.1 Denitions 5.2 Aims of Gamut Mapping 5.3 Gamut Mapping Algorithm Context; 5.4 |

Types of Gamut Mapping; 5.5 Building Blocks of Gamut Mapping Algorithms; 5.6 Factors Affecting Gamut Mapping; 5.7 Will Gamut Mapping become Redundant?; 6. Color Spaces for Gamut Mapping; 6.1 Implications of Mapping Appearance Predictors; 6.2 Which Appearance Attributes' Predictors to Map; 6.3 Overview of Color Appearance Spaces; 6.4 Mapping in Nonappearance Spaces; 6.5 Choosing a Space for Gamut Mapping; 7. Basic Computational Geometry for Gamut Mapping; 7.1 Spaces, Points, Lines and Planes; 7.2 Intersections 7.3 Is a Point Inside or Not? 7.4 Normals; 7.5 Triangulation; 7.6 Summary; 8. Color Gamuts and their Computation; 8.1 Challenges and Implications of Denition; 8.2 Gamut Boundary Descriptor Algorithms; 8.3 Evaluating and Operating on Gamut Boundary Descriptors; 8.4 Examples of Salient Color Gamuts; 8.5 Image Gamuts; 8.6 Summary; 9. A Case Study: Minimum Color Difference Gamut Clipping; 9.1 The Original; 9.2 The Destination Gamut; 9.3 Minimum Color Difference Gamut Mapping; 9.4 The Destination Image; 9.5 Effect of Alternatives; 9.6 Summary; 10. Survey of Gamut Mapping Algorithms 10.1 Color-by-color Reduction 10.2 Color-by-color Expansion; 10.3 Spatial Gamut Reduction; 10.4 Spectral Gamut Mapping; 10.5 Gamut Mapping for Special Applications; 10.6 Summary; 11. Gamut Mapping Algorithms and Color Management Systems; 11.1 Gamut Mapping Algorithms for Closed-loop Color Management; 11.2 Gamut Mapping Algorithms for sRGB Color Management; 11.3 Gamut Mapping Algorithms for ICC Color Management; 11.4 Gamut Mapping Algorithms for WCS Color Management; 11.5 Types of Color Management Context; 11.6 Spatial and Spectral Gamut Mapping; 11.7 Conclusions 12. Evaluating Gamut Mapping Algorithms

Sommario/riassunto

Gamut mapping algorithms, implemented by color management systems, are an integral part of the color reproduction process. By adjusting the colors with appropriate algorithms, gamut mapping enables original colors to 'fit' inside differently shaped color gamuts and authentically transfers images across a range of media. This book illustrates the range of possible gamut mapping strategies for cross-media color reproduction, evaluates the performance of various options and advises on designing new, improved solutions. Starting with overviews of color science, reproduction and management, the
