

1. Record Nr.	UNINA9911004828403321
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Titolo	Modulation transfer function in optical and electro-optical systems / / Glenn D. Boreman
Pubbl/distr/stampa	Bellingham, Wash., : SPIE Press, c2001
ISBN	1-61583-697-7 0-8194-8045-2 9781615836970
Descrizione fisica	1 online resource (vii, 110 pages) : illustrations
Collana	Tutorial texts in optical engineering ; ; v. TT 52
Disciplina	621.36
Soggetti	Optics Electrooptical devices Modulation theory
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Preface -- Chapter 1. MTF in optical systems -- 1.1. Impulse response -- 1.2. Spatial frequency -- 1.3. Transfer function. 1.3.1. Modulation transfer function; 1.3.2. Phase transfer function -- 1.4. MTF and resolution -- 1.5. Diffraction MTF. 1.5.1. Calculation of diffraction MTF; 1.5.2. Diffraction MTF for obscured systems -- 1.6. Geometrical MTF. 1.6.1. Effect of defocus on MTF; 1.6.2. Effect of other aberrations on MTF; 1.6.3. MTF and Strehl ratio -- References -- Further reading -- Chapter 2. MTF in electro-optical systems -- 2.1. Detector footprint MTF -- 2.2. Sampling. 2.2.1. Aliasing; 2.2.2. Sampling MTF -- 2.3. Crosstalk -- 2.4. Electronic-network MTF -- 2.5. Conclusion -- References -- Further reading -- Chapter 3. Other MTF contributions -- 3.1. Motion MTF -- 3.2. Vibration MTF -- 3.3. Turbulence MTF -- 3.4. Aerosol-scattering MTF -- References -- Further reading. Chapter 4. MTF measurement methods -- 4.1. Point-spread function (PSF) -- 4.2. Line-spread function (LSF) -- 4.3. Edge-spread function (ESF) -- 4.4. Comparison of PSF, LSF, and ESF -- 4.5. Noise targets -- 4.6. Bar-target MTF measurement -- References -- Chapter 5. Practical measurement issues -- 5.1. Cascade properties of MTF -- 5.2. Quality of auxiliary optics -- 5.3. Source coherence -- 5.4. Correcting for finite

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Sommario/riassunto

This tutorial introduces the theory and applications of MTF, used to specify the image quality achieved by an imaging system. It covers basic linear systems theory and the relationship between impulse response, resolution, MTF, OTF, PTF, and CTF. Practical measurement and testing issues are discussed.
