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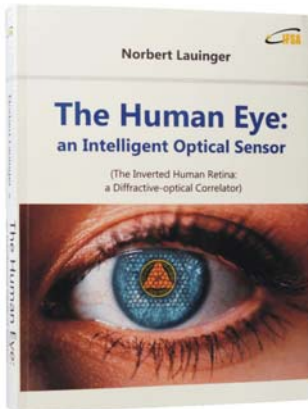
Norbert Lauinger



The Human Eye:

an Intelligent Optical Sensor

(The Inverted Human Retina: a Diffractive-optical Correlator)



Hardcover: ISBN 978-84-617-2934-0
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The Human Eye: an intelligent optical sensor (The inverted retina: a diffractive - optical correlator) shows that the human eye from the prenatal structuring of the inverted retina hardware on up to the design of the central cortical visual pathway is not only different from but also radically more intelligent than a camera.

Many paradoxes in color vision (RGB peak positioning in the visible spectrum, overlapping of the RGB channels, relating local color to the whole scene, paradoxically colored shadows, Purkinje phenomenon etc.) are becoming intelligent solutions.

A fascinating book for all those wondering that the brightness of a scene is not cut in half and that the visible world doesn't collapse into a flat 2D-image when closing one eye. It should be a great of interest for students, scientists and engineers in eye-, vision- and brain-research, neuroscience, psychophysics, ophthalmology, psychology, optical sensor and diffractive optical engineering. Practical applications are the search for a retinal implant of the next generation and a helpful strategy against myopia in early childhood.



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