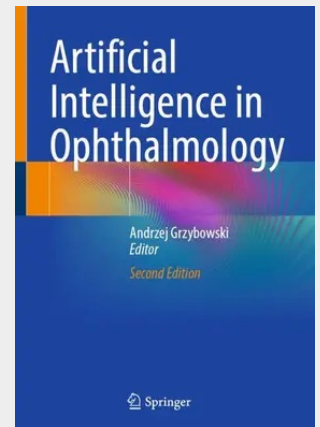


Artificial Intelligence in Ophthalmology

This book provides a wide-ranging overview of artificial intelligence (AI), machine learning (ML) and deep learning (DL) algorithms in ophthalmology. Expertly written chapters examine AI in age-related macular degeneration, glaucoma, retinopathy of prematurity and diabetic retinopathy screening. AI perspectives, systems and limitations are all carefully assessed throughout the book as well as the technical aspects of DL systems for retinal diseases including the application of Google DeepMind, the Singapore algorithm, and the Johns Hopkins algorithm.

has been fully revised with the latest advancements in the field. New chapters highlight topics such as the threats to the validity of the predictive system performance for ophthalmology, challenges in the deployment of AI for diabetic retinopathy screening and the use of AI in calculating the IOL power to name just a few. This book meets the need for a resource that reviews the benefits and pitfalls of AI, ML and DL in ophthalmology. Ophthalmologists, optometrists, eye-care workers, neurologists, cardiologists, internal medicine specialists, AI engineers and IT specialists with an interest in how AI can help with early diagnosis and monitoring treatment in ophthalmic patients will find this book to be an indispensable guide to an evolving area of healthcare technology.

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