Record Nr. UNINA9910460511203321 **Titolo** Integrated multidisciplinary approaches in the study and care of the human eye / / editors, Paola Causin [and three others] Pubbl/distr/stampa Amsterdam, Netherlands:,: Kugler Publications,, 2014 ©2014 **ISBN** 90-6299-867-4 Descrizione fisica 1 online resource (198 p.) Disciplina 617.7 Soggetti Eye - Care and hygiene Ophthalmology Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali "Proceedings of the First Milano Workshop on Integrated Multidisciplinary Approaches in the Study and Care of the Human Eye, Milan, Italy, June 26-27, 2013." Includes bibliographical references at the end of each chapters. Nota di bibliografia ""FOREWORD""; ""CLINICAL EXPERIENCE AND MATHEMATICAL Nota di contenuto MODELING IN EYE SURGERY""; ""INTRODUCTION""; ""1. MATHEMATICAL MODELING IN EYE SURGERY""; ""2. FLUID MECHANICS OF THE VITREOUS CHAMBER""; ""3. EFFECT OF TRABECULECTOMY ON RETINAL HEMODYNAMICS:MATHEMATICAL MODELING OF CLINICAL DATA"; ""CLINICAL EXPERIENCE AND MATHEMATICAL MODELING INOCULAR HAEMODYNAMICS""; ""INTRODUCTION""; ""4. MODELING BLOOD FLOW AUTOREGULATION IN THE RETINA""; ""5. EFFECT OF INTRAOCULAR PRESSURE AND CEREBROSPINAL FLUID PRESSURE ON THE BLOOD FLOW IN THE CENTRAL RETINAL VESSELS""; ""6. OPEN-ANGLE GLAUCOMA AND **BLOODFLOW""** ""DIAGNOSTIC TECHNIQUES AND MANAGEMENT OF OCULAR DISEASES""""INTRODUCTION""; ""7. SOCIAL AND ECONOMIC BURDEN OF RETINOPATHIES""; ""8. STATISTICAL METHODS FOR THE ANALYSIS OF STOCHASTIC FIBER PROCESSES""; ""9. GLAUCOMA DISEASE: PATHOPHYSIOLOGY, RISKS FACTORS AND CLINICAL PERSPECTIVES""; ""EMERGING TECHNIQUES IN ARTIFICIAL VISION""; ""INTRODUCTION"";

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""INTRODUCTION""; ""11. PORO-ELASTIC MODELING FOR BIOLOGICAL TISSUES AND HUMAN EYE: RECENT ADVANCES AND FUTURE PERSPECTIVES""

""12. MATHEMATICAL MODELING OF RETINAL MICROCIRCULATION AND OXYGEN DELIVERY"""13. A COMPUTATIONAL MODEL FOR THE RETINAL VASCULAR NETWORK:THE DYNAMICS OF THE ENDOTHELIAL TIP CELL FILOPODIA""

Sommario/riassunto

Foreword The human eye offers the extraordinary possibility to visualize and monitor non-invasively, in vivo, in humans, many morphological and haemodynamical features. Therefore, a large amount of data on ocular structures and macro- and micro-circulation can be obtained in a clinical setting during a patient's visit. However, the interpretation of these data remains a very challenging task, since the understanding of the physiology, bio-mechanics and fluid-dynamics of the human eye remains scarce. This unmet gap between the availability of imaging data and their elusive clinical interpretatio