



Artificial Intelligence: Detecting and Classifying Ophthalmic Conditions

- **Use of Artificial Intelligence to Describe the Structural Signature of the Glaucomatous Optic Nerve Head**

Presenter: S.K. Panda, Biomedical Engineering, National University of Singapore, Singapore, SINGAPORE, Ophthalmic Engineering & Innovation Laboratory (OEIL), Singapore Eye Research Institute, Singapore, SINGAPORE

- **Detecting glaucoma progression using optic nerve volume scans with three-dimensional spectral-domain optical coherence tomography**

Presenter: K. Ratanawongphaibul, Ophthalmology, Chulalongkorn University, Bangkok, Bangkok, THAILAND, Ophthalmology, Massachusetts Eye and Ear Infirmary Department of Ophthalmology, Boston, Massachusetts, UNITED STATES

- **A risk model for early detection of treatment-requiring retinopathy of prematurity using a deep learning-derived vascular severity score**

Presenter: Aaron Coyner, Oregon Health & Science University, Portland, Oregon, UNITED STATES

- **Detection of Glaucoma Progression from Retinal Nerve Fiber Layer Thickness Measurements Using Machine Learning**

Presenter: X. Huang, Department of Ophthalmology, The University of Tennessee Health Science Center, Memphis, Tennessee, UNITED STATES

- **Deep learning-based automated fluid quantification in clinical routine OCT images in neovascular AMD over 5 years**

Presenter: B. Gerendas, Department of Ophthalmology, Medical University of Vienna, Vienna, AUSTRIA

- **Deep Learning for Detection of Keratoconus and Prediction of Crosslinking Efficacy**

Presenter: H. Liu, Ophthalmology, University of Ottawa, Ottawa, Ontario, CANADA

- **Combining artificial intelligence and robotics: a semi-automated optical coherence tomography-based approach for posterior eye disease screening**
 Presenter: A. Song, Duke University School of Medicine, Durham, North Carolina, UNITED STATES
- **Automated Machine Learning Model For The Classification Of Retinal Diseases From Ultra-Widefield Pseudocolor Fundus Images**
 Presenter: F. Antaki, Department of Ophthalmology, Hopital Maisonneuve-Rosemont, Montreal, Quebec, CANADA, Department of Ophthalmology, Centre Hospitalier de l'Universite de Montreal, Montreal, Quebec, CANADA
- **A Deep-Learning Based Algorithm for Automated Segmentation of Geographic Atrophy in Swept-Source Optical Coherence Tomography**
 Presenter: V. Pramil, New England Eye Center, Boston, Massachusetts, UNITED STATES, Tufts University School of Medicine, Boston, Massachusetts, UNITED STATES
- **Deep-learning enface image classifier analysis of optical coherence tomography angiography images improves classification of healthy and glaucoma eyes.**
 Presenter: C. Bowd, Hamilton Glaucoma Center, Viterbi Family Department of Ophthalmology and Shiley Eye Institute, University of California San Diego, La Jolla, California, UNITED STATES
- **Deep learning for detecting glaucoma in the Ocular Hypertension Treatment Study: Implications for clinical trial endpoints**
 Presenter: R. Fan, Hamilton Glaucoma Center, Viterbi Family Department of Ophthalmology and Shiley Eye Institute, University of California San Diego, La Jolla, California, UNITED STATES, Department of Computer Science and Engineering, University of California San Diego, La Jolla, California, UNITED STATES
- **Theranostic platforms in the retina**
 Presenter: R.J. Zawadzki, Eye Center, University of California Davis, Davis, California, UNITED STATES
- **Artificial intelligence algorithm for retinal fluid volume quantification from self-imaging with a Home OCT System**
 Presenter: A. Loewenstein, Ophthalmology, Tel Aviv Sourasky Medical Center, Medicine, Tel-Aviv University George S Wise Faculty of Life Sciences, Tel Aviv, ISRAEL