

Preface FIFI 2017

The application of sophisticated analysis tools to fetal, infant and paediatric imaging data is of interest to a substantial proportion of the MICCAI community. The main objective of this workshop is to bring together researchers in the MICCAI community to discuss the challenges of image analysis techniques as applied to the fetal and infant setting. Advanced medical image analysis allows the detailed scientific study of conditions such as prematurity and the study of both normal singleton and twin development in addition to less common conditions unique to childhood. This workshop brings together methods and experience from researchers and authors working on these younger cohorts and provides a forum for the open discussion of advanced image analysis approaches focused on the analysis of growth and development in the fetal, infant and paediatric period.

September 2017

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Organization

Organizing Committee

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Preface OMIA 2017

Age-related macular degeneration, diabetic retinopathy, and glaucoma are the main causes of blindness. Oftentimes blindness can be avoided by early intervention, making computer-assisted early diagnosis of retinal diseases a research priority. Related research is exploring retinal biomarkers for systemic conditions like dementia, cardiovascular disease, and complications of diabetes. Significant challenges remain, including reliability and validation, effective multimodal analysis (e.g., fundus photography, optical coherence tomography, and scanning laser ophthalmoscopy), more powerful imaging technologies, and the effective deployment of cutting-edge computer vision and machine learning techniques. The Fourth International Workshop on Ophthalmic Medical Image Analysis (OMIA-4) addresses all these aspects and more, this year in collaboration with the ReTOUCH retinal image challenge.

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