ISMRM Workshop on Machine Learning Part II
Washington, D.C., USA • 25-28 October 2018

OVERVIEW
This workshop will focus on the use of machine learning for MRI applications, both on the technical aspects of MRI and PET/MRI for improved reconstruction as well as on its use for adding diagnostic value to existing images. This latter aspect would include methods for more robust segmentation as well as disease classification and prediction.

The workshop will feature a mixture of invited scientific presentations, proffered papers, a poster session, small-group discussion, and a keynote lecture. A Young Investigator Award will be presented to students and early-stage post-doctoral candidates or physicians who will be selected from the oral paper presentations.

EDUCATIONAL OBJECTIVES
Upon completion of this activity, participants should be able to:
• Describe the different classes of machine learning algorithms, including supervised and non-supervised learning;
• Identify the latest methods for using deep convolutional neural networks for image processing and reconstruction;
• Recall prior and ongoing efforts to leverage the maximal value from multi-modal MR datasets, including PET/MRI; and
• Recognize current and near-term clinical applications, including segmentation and classification.

TARGET AUDIENCE
This workshop is targeted towards MR physicists (pre- and post-doctoral students) interested in machine learning; radiologists and nuclear medicine physicians using or interested in becoming involved with machine learning approaches to MRI and PET/MRI; and information and data scientists interested in how cutting-edge machine learning algorithms could be used for healthcare applications.

ORGANIZING COMMITTEE
Chair: Greg Zaharchuk, M.D., Ph.D. • Vice-Chair: Florian Knoll, Ph.D.
Committee: Mehmet Akcakaya, Ph.D. • Peter Chang, M.D. • Joseph Yitan Cheng, Ph.D. • Tolga Cukur, Ph.D. • Garry E. Gold, M.D. • Enhao Gong, M.Sc.
Joseph V. Hajnal, Ph.D. • Dong Liang, Ph.D. • Fang Liu, Ph.D. • Yvonne Lui, M.D. • Alan B. McMillan, Ph.D. • Kim Mouridsen, Ph.D. • Frank H. Ong, B.Sc.
John Pauly, Ph.D. • Matthew Rosen, Ph.D. • Daniel Rueckert, Ph.D. • Jo Schlemper, M.Res. • Dinggang Shen, Ph.D. • Martin Uecker, Dr. rer. nat.
Shreyas S. Vasanawala, M.D., Ph.D. • Jong Chul Ye, Ph.D. • Lei (Leslie) Ying, Ph.D. • Chun Yuan, Ph.D., Bo Zhu, Ph.D.

For More Information Including Housing & Registration
Please Visit: www.ismrm.org or Call +1.510.841.1899

The International Society for Magnetic Resonance in Medicine is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians. This workshop does not offer CME credits.