Deep Learning and Medical Applications

January 27 - 31, 2020

Scientific Overview

Rapid advances in deep learning techniques are starting to revolutionize medical imaging. Radiology, disease detection, and tissue imaging are all expected to be facilitated by automated image analysis programs in the near future. Many new interdisciplinary research questions arise; finding solutions with practical significance requires input from mathematicians, bio-physicists, and computational engineers. This workshop aims to bring together researchers from different backgrounds to explore this new frontier of science.

The workshop will include a poster session; an announcement for posters will be sent to registered participants in advance of the workshop.

Participation

Additional information about this workshop including links to register and to apply for funding, can be found on the webpage listed below. Encouraging the careers of women and minority mathematicians and scientists is an important component of IPAM's mission, and we welcome their applications.
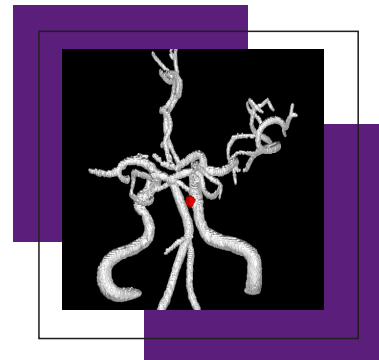
Organizers

Ben Glocker (Imperial College), Gitta Kutyniok (TU Berlin), Marc Niethammer (UNC), Stan Osher (UCLA), Daniel Rueckert (Imperial College), Jin Keun Seo (Yonsei Univ.), Michael Unser (EPFL), and Jong Chul Ye (KAIST).

Speakers

Ingrid Daubechies (Duke), Ivan Dokmanic (Univ. of Illinois at Urbana-Champaign), Bin Dong (Peking Univ.), Jeffery Fessler (Univ. of Michigan), Ben Glocker (Imperial College), Hayit Greenspan (Tel Aviv Univ.), Dosik Hwang (Yonsei Univ.), Ivana Isgum (Univ. of Medical Center Utrecht), Ulugbek Kamilov (Washington Univ. in St. Louis), Florian Knoll (NYU), Ender Konukoglu (ETH Zurich), Gitta Kutyniok (TU Berlin), Roland Kwitt (Univ. of Salzburg), Georg Langs (TU Wein), Maximilian Maerz (TU Berlin), Jill P. Mesirov (UCSD), Nassir Navab (TU Munich), Marc Niethammer (UNC), Ozan Öktem (KTH), Stanley Osher (UCLA), Daniel Rueckert (Imperial College), Lars Ruthotto (Emory Univ.), Michiel Schaap (Heartflow), Carola-Bibiane Schönlieb (Cambridge), Jin Keun Seo (Yonsei Univ.), Zuowei Shen (National Univ. of Singapore), Daniel Sodickson (NYU), Michael Unser (EPFL), Mihaela van der Schaar (UCLA, Cambridge), Tom Vercauteren (King's College London), Jong Chul Ye (KAIST), and Greg Zaharchuk (Stanford, Subtle Medical).

For more information, visit the program webpage:
www.ipam.ucla.edu/dlm2020