

Brains, Minds, and Machines

A Special Topics Course at MBL Woods Hole, MA

Directors: L. Mahadevan, Harvard University; and Tomaso Poggio, MIT

Course Date: May 29 – June 12, 2014 Application Deadline: February 14, 2014

This intensive two-week course will give advanced students a "deep end" introduction to the problem of intelligence – how the brain produces intelligent behavior and how we may be able to replicate intelligence in machines. Today's AI technologies, such as Watson and Siri, are impressive, but their domain specificity and reliance on vast numbers of labeled examples are obvious limitations; few view this as brain-like or human intelligence. The synergistic combination of cognitive science, neurobiology, engineering, mathematics, and computer science holds the promise to build much more robust and sophisticated algorithms implemented in intelligent machines. The goal of this course is to help produce a community of leaders that is equally knowledgeable in neuroscience, cognitive science, and computer science. The course is limited to 25 students.

Tuition, room, and board at MBL will be supported by an NSF Science and Technology Center award to the Center for Brains, Minds, and Machines (http://cbmm.mit.edu/).

For more information, including the Application form, please visit: http://hermes.mbl.edu/education/courses/special_topics/bmm.html.

Course Faculty will include:

Edward Boyden Robert Desimone Winrich Freiwald Noah Goodman Nancy Kanwisher Boris Katz Gabriel Kreiman Ken Nakayama Lorenzo Rosasco Laura Schulz Elizabeth Spelke Joshua Tenenbaum Shimon Ullman Leslie Valiant Patrick Winston Alan Yuille