DISTRIBUTED LEARNING AND SIGNAL PROCESSING ALGORITHMS
BY DR. ANNA SCAGLIONE

This talk will introduce peer to peer algorithms for distributed computation and inference.
We will start from the Average Consensus (AC) primitive, its convergence properties over deterministic and random networks and then introduce the Distributed Sub-Gradient (DSG) and the Alternating Direction Method of Multipliers (ADMM) methods. The applications of these algorithms to distributed computation tasks such as hypothesis testing, least square approximations, will be highlighted throughout the talk.

Speaker Bio:

Anna Scaglione (M.Sc.'95, Ph.D. '99) is currently a professor in electrical and computer engineering at Arizona State University. She was Professor of Electrical Engineering previously at the at UC Davis (2010-2014), Associate Professor at UCD 2008-2010 and at Cornell (2006-2008), and Assistant Professor at Cornell (2001-2006) and at the University of New Mexico (2000-2001).
Her expertise is in the broad area of statistical signal processing for communication, electric power systems and networks. Her current research focuses on studying and enabling decentralized learning and signal processing in networks of sensors.
Dr. Scaglione was elected an IEEE fellow in 2011. She served as Associate Editor for the IEEE Transactions on Wireless Communications and on Signal Processing, as EiC of the IEEE Signal Processing letters. She was member of the Signal Processing Society Board of Governors from 2011 to 2014. She received the 2000 IEEE Signal Processing Transactions Best Paper Award and more recently was honored for the 2013, IEEE Donald G. Fink Prize Paper Award for the best review paper in that year in the IEEE publications, her work with her student earned 2013 IEEE Signal Processing Society Young Author Best Paper Award (Lin Li).

The event is FREE.