

# THE DEPARTMENT OF ELECTRICAL & COMPUTER ENGINEERING SPEAKER SERIES

**PRESENTS**

## **Title: Learning to Read Xray: Applications to Heart Failure Monitoring**



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Monday, April 4, 10:00 am

Virtual Zoom Meeting:

<https://zoom.us/j/9762699678?pwd=RUUp5ZmN3cHUyQ1FvUEExVQjVsc1hVUT09>

Meeting ID: 976 269 9678

Passcode: K91Bwy

### **LECTURE ABSTRACT**

**Abstract:** We propose and demonstrate a novel approach to training image classification models based on large collections of images with limited labels. We take advantage of availability of radiology reports to construct joint multimodal embedding that serves as a basis for classification. We demonstrate the advantages of this approach in application to assessment of pulmonary edema severity in congestive heart failure that motivated the development of the method.

### **SPEAKER BIOSKETCH**

Dr. Polina Golland is a Henry Ellis Warren (1894) professor of Electrical Engineering and Computer Science at MIT and a principal investigator in the MIT Computer Science and Artificial Intelligence Laboratory (CSAIL). Her primary research interest is in developing novel techniques for medical image analysis and understanding. With her students, Polina has demonstrated novel approaches to image segmentation, shape analysis, functional image analysis and population studies. She has served as an associate editor of the IEEE Transactions on Medical Imaging and of the IEEE Transactions on Pattern Analysis. Polina is currently on the editorial board of the Journal of Medical Image Analysis. She is a Fellow of the International Society for Medical Image Computing and Computer Assisted Interventions (MICCAI) and of the American Institute for Medical and Biological Engineering (AIMBE).

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