Deep Learning on Pathology Images

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The evidence for the clinical relevance of tumor-infiltrating lymphocytes (TILs) is on the rise. However, pathologists usually score TILs on hematoxylin and eosin (H&E) stained slides, which is subjected to inter- and intra-observer variations. We use TIL maps that are produced from computational staining of digitized images, using a convolutional neural network trained to classify patches of images. Next, we discover local spatial patterns using affinity propagation and show that they are informative for the prediction of overall survival. Also, we will be discussing life after graduate school, job search in academia, and a mathematician thriving among bench scientists.

Food and drinks sponsored by SIAM will be served at this event.

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