

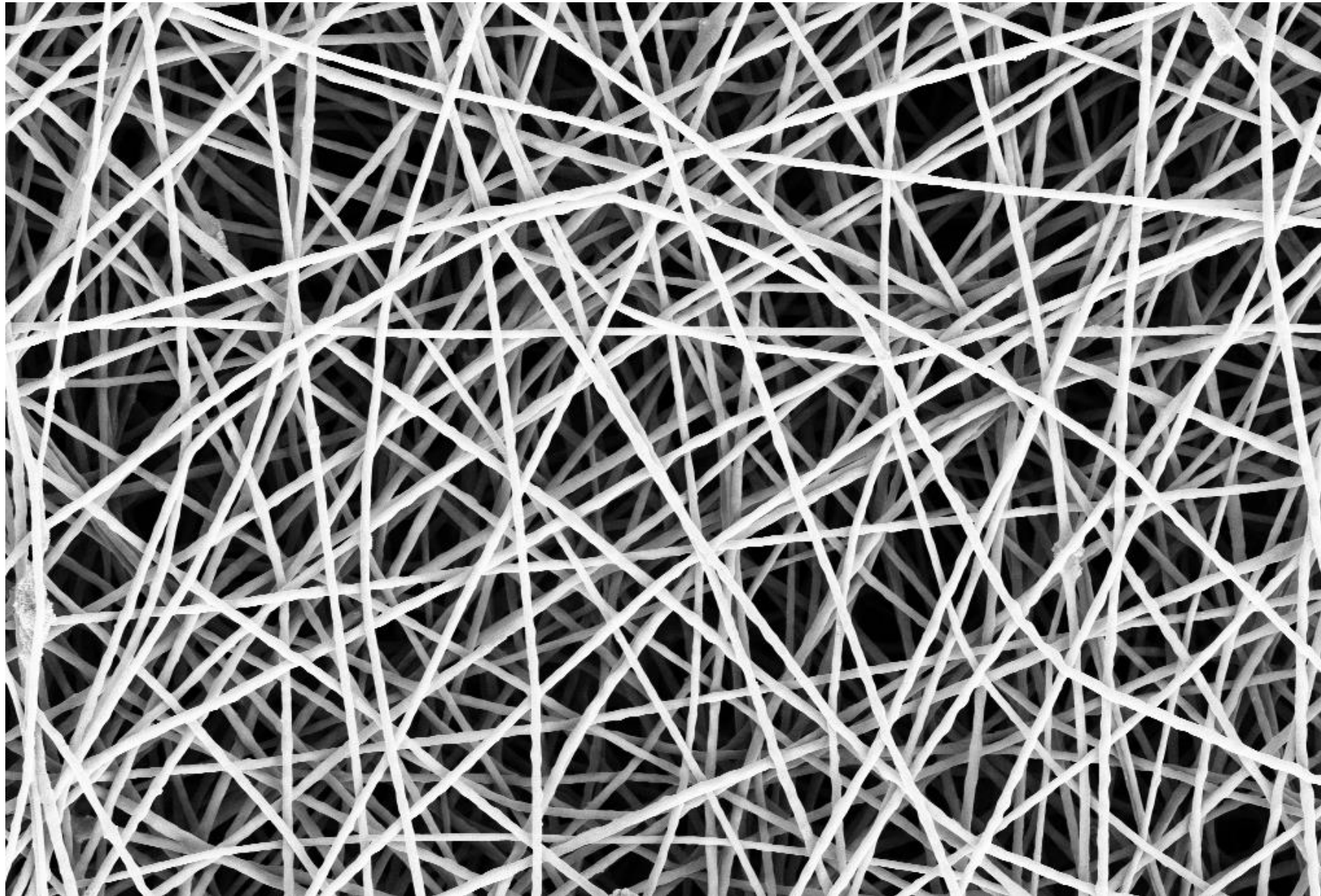
Anomaly Detection and Classification

**Mathematical Models and Methods for Image
Processing**

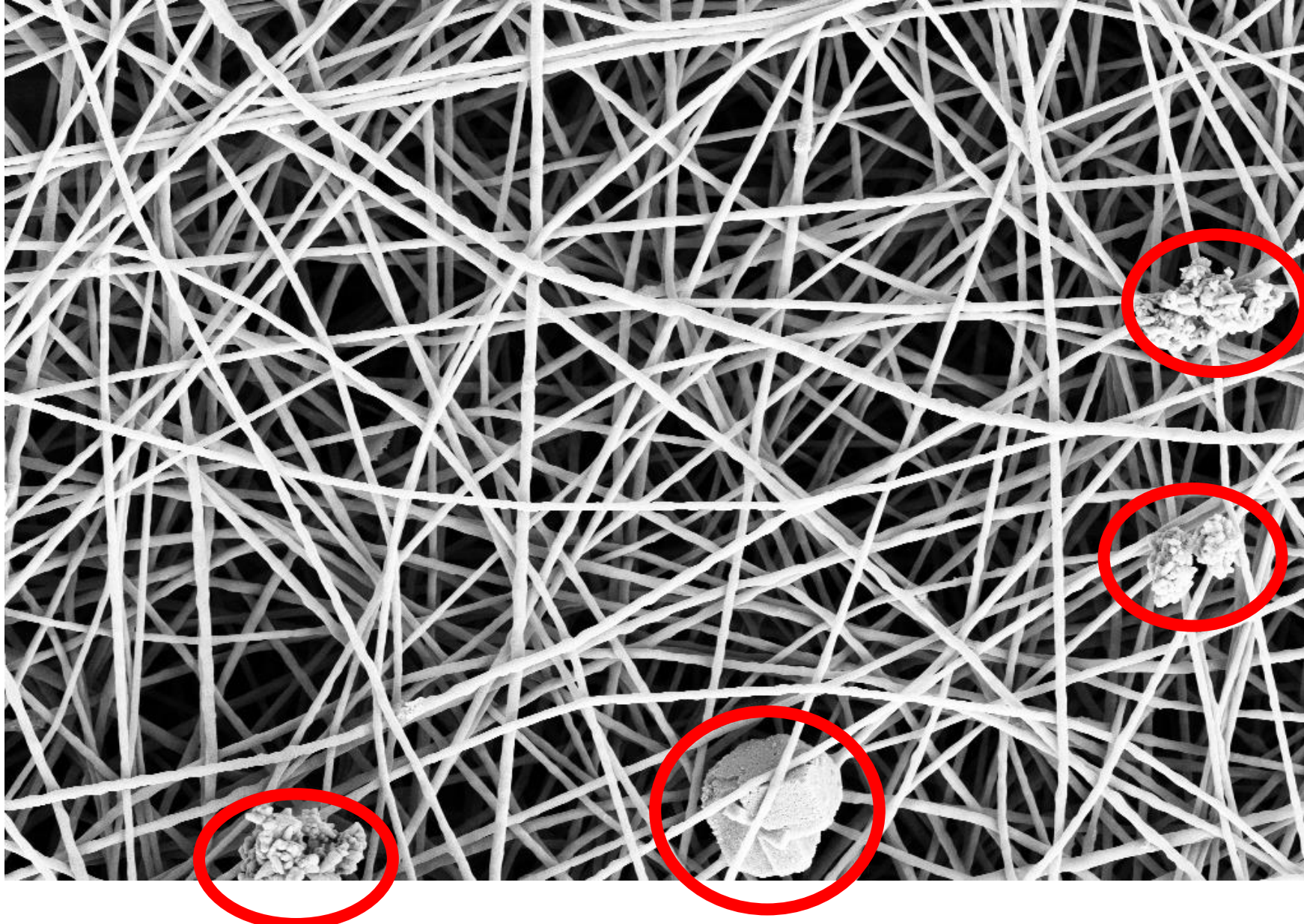
Diego Carrera

May 2nd 2024

The anomaly detection problem



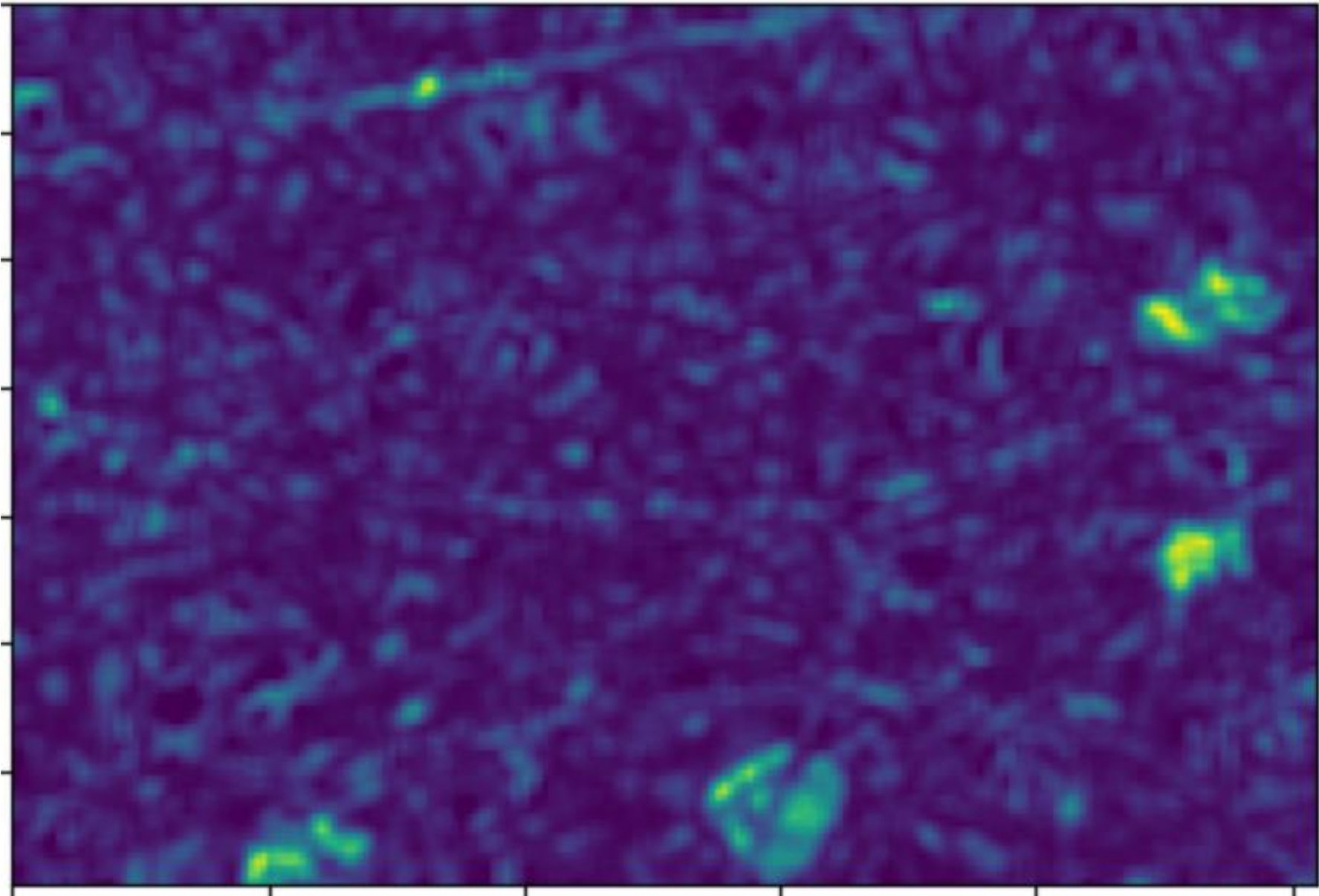
The anomaly detection problem



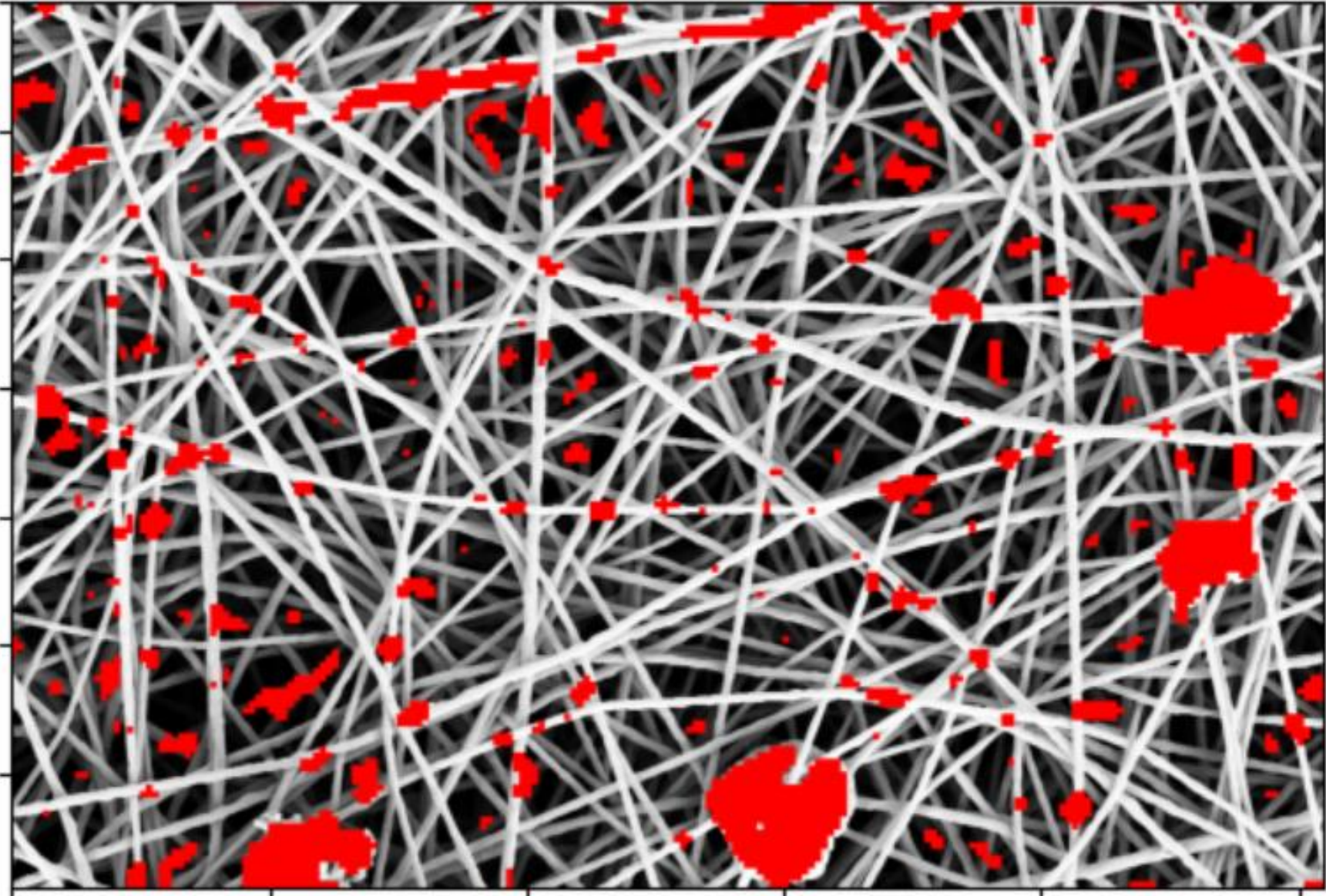
The anomaly mask



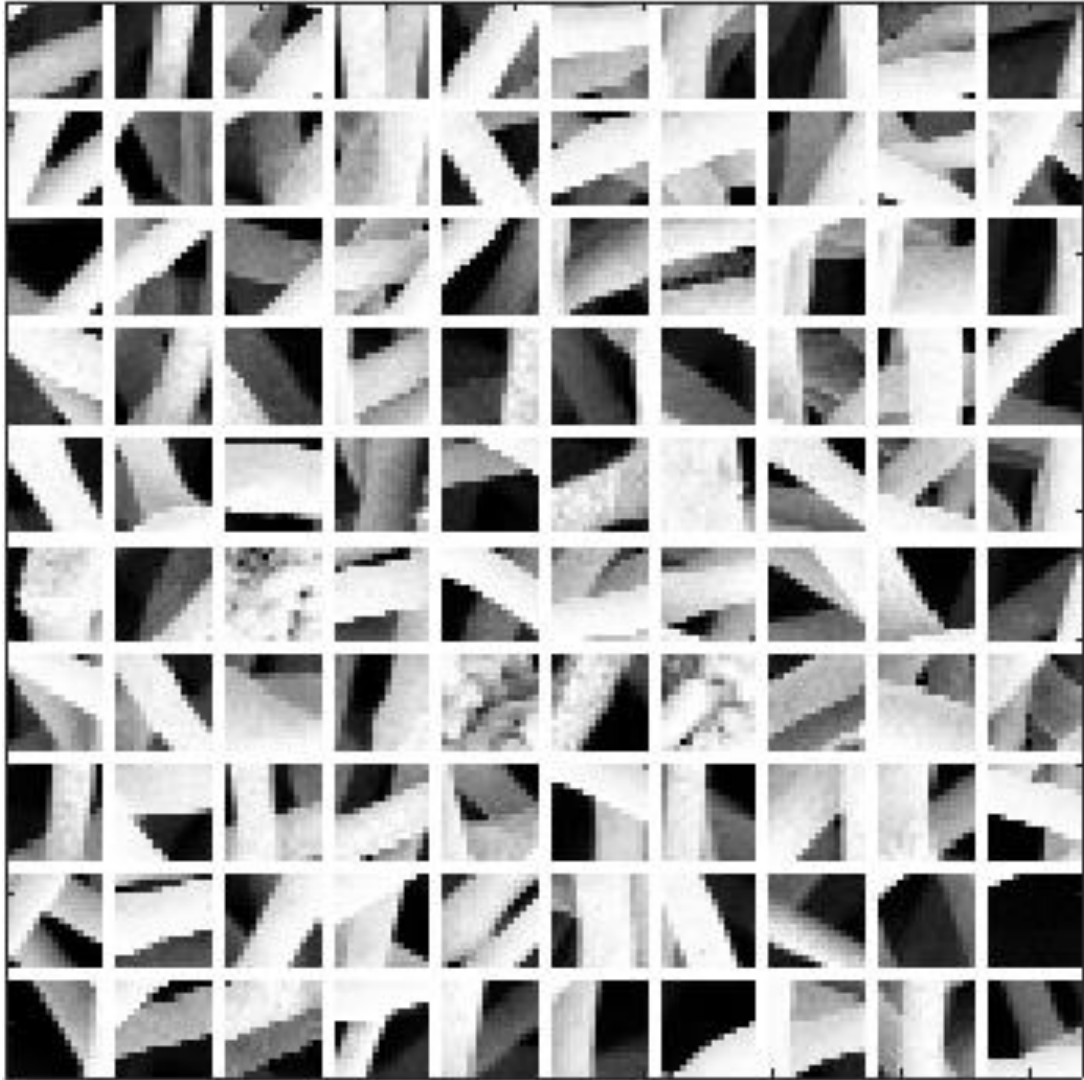
Heatmap



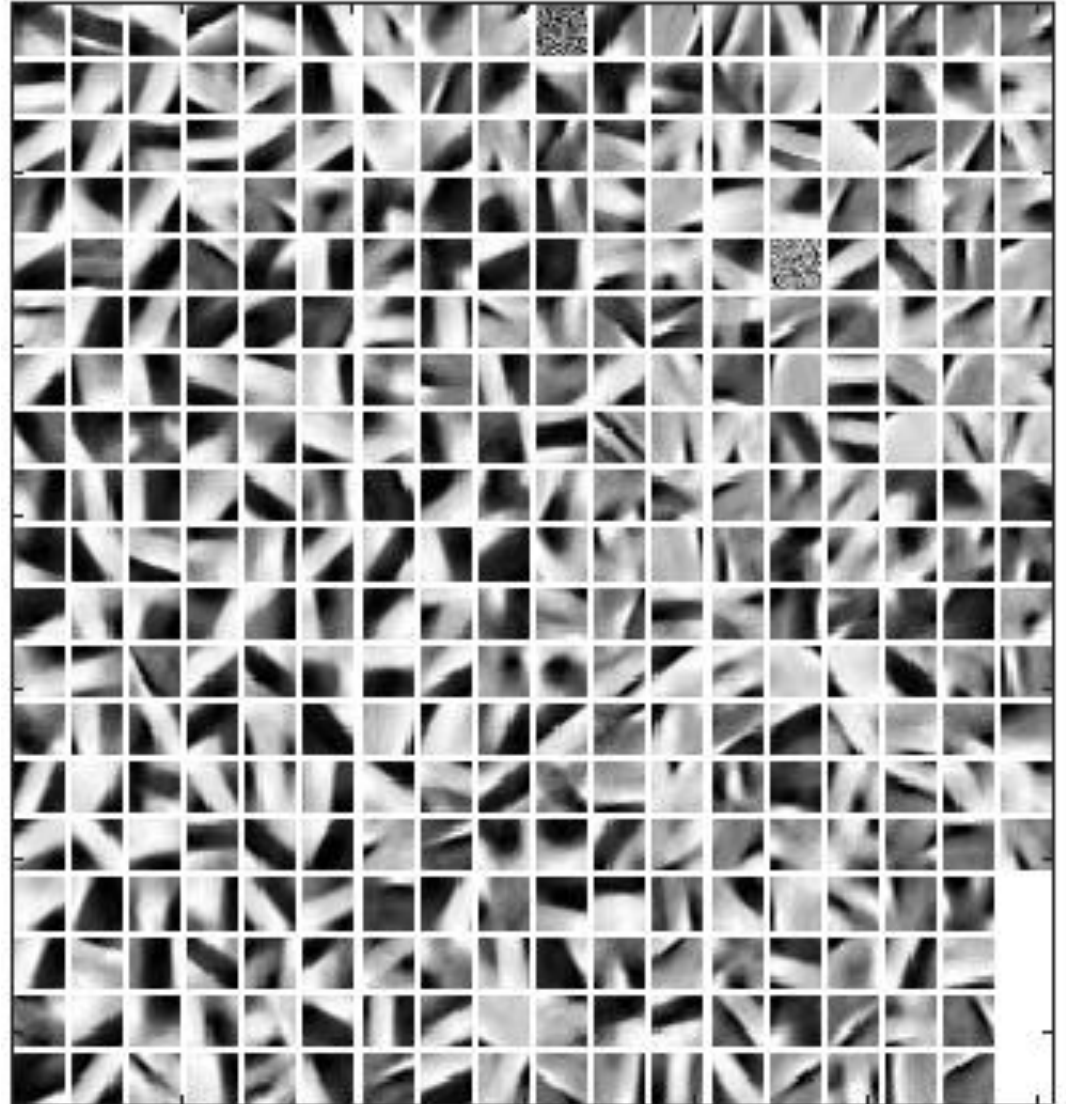
Detections



Normal Patches



Learned Dictionary



Assignments

- Implement the anomaly detection based on l1 sparse coding
 - Use 15x15 patches
 - You can improve the results by fine tuning all the parameters