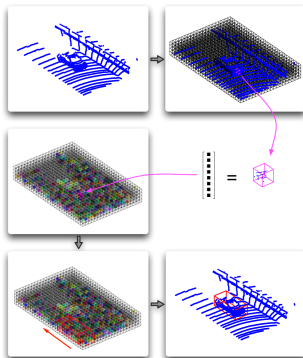


# Voting for Voting in Online Point Cloud Object Detection

D. Z. Wang, and I. Posner (RSS2015)



- ▶ Sliding window approach for laser-based 3D object detection
- ▶ A voting scheme by exploiting sparsity
  - ▶ Enabling a search through all putative object locations at any orientation
  - ▶ Mathematically equivalent to a convolution on a sparse feature grid (a linear classifier)
  - ▶ Processing in full 3D, irrespective of the number of vantage points
- ▶ Highly parallelisable (processing 100K points at eight orientations in less than 0.5s)
- ▶ The best-in-class detection and timing for car, pedestrian and bicyclist on KITTI