1-HKUST: Two Granularity Object Detection with Multi-model Fusion

Yongyi Lu§, Hao Chen†, Qifeng Chen♯, Yao Xiao§, Hei Law‡, Chi-Keung Tang§

§The Hong Kong University of Science and Technology
†The Chinese University of Hong Kong
♯Stanford University  ‡University of Michigan

Low Resolution Objects (< 100 x 100)

AlexNet
NIN
VGG-16
VGG-19

\[ f(x) = \sum_{i} w_i f_i(x) \]

High Resolution Objects (> 100 x 100)

Fast RCNN (VGG16)

Model Fusion
Reweight
Fused Scores
Final Detections

Data set: CLS + DET + HKUST-object-100 (100 classes, 219174 images)
Data augmentation: 0.9 overlapping