# Fastest Pedestrian Detector in the West [Piotr Dollar et al]

* For scale invariant features based on statistic of natural images, features computed at one scale can be used to approximate features computed withing nearby scale.
* Approximation is accurate within a scale octave
* Hence we can have sparse pyramid with one scale per octave
* Approximation :
  + Where
    - f is statistic function (feature)
    - a, are constant
    - I is image
    - s is scale
* Estimate a, by least square fit
* 1-2 per cent loss in accuracy but 10-100 times faster than computing methods