DeepCut: Joint Subset Partition and Labeling for Multi Person Pose Estimation L. Pishchulin, E. Insafutdinov, S. Tang, B. Andres, M. Andriluka, P. Gehler, B. Schiele (CVPR 2016)



- Existing methods for human pose estimation use two-stage strategies that separate the detection and pose estimation steps
- Contributions:
  - Proposes a new formulation as a joint subset partitioning and labeling problem (SPLP) of a set of body-part hypotheses generated with CNN-based part detectors
  - SPLP model jointly infers the number of people, their poses, spatial proximity, and part level occlusions
  - Results show that a joint formulation is crucial to disambiguate multiple and potentially overlapping persons
- Evaluates on LSP and MPII single-person benchmarks and MPII and WAF multi-person benchmarks