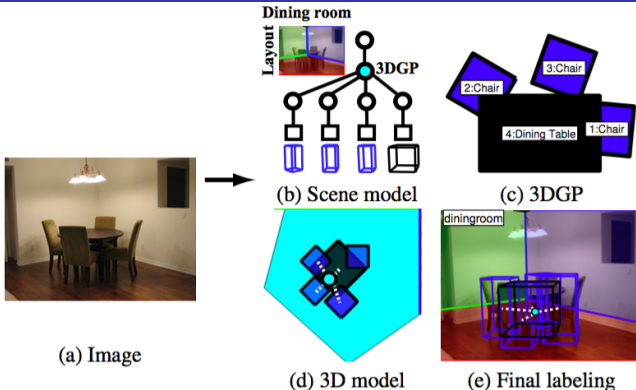


Understanding Indoor Scenes using 3D Geometric Phrases

W. Choi, Y. Chao, C. Pantofaru, S. Savarese (CVPR 2013)



- ▶ Proposes a novel unified framework that can reason about the semantic class of an indoor scene, its spatial layout, and the identity and layout of objects within the space
- ▶ Contributions:
 - ▶ Presents a hierarchical model for learning & reasoning about indoor scenes
 - ▶ Proposes a 3D Geometric Phrase Model to capture semantic & geometric relationships between objects which co-occur in the same 3D configuration
 - ▶ Shows that this model effectively explains scene semantics, geometry & object groupings while also improving individual object detections
- ▶ Evaluates on new indoor-scene-object introduced in the paper