# 14-CVPR-A Mixture of Manhattan Frames: Beyond the Manhattan World

# Manhattan World assumption

#### 10

# MCMC

#### 18

#### 26

# Vanishing points in images and 3D MW in dense 3D structure

#### 30 (single image)

#### 15(multiple image)

#### 24

# MW for orientation estimation

#### 10

#### 5

# SLAM

#### 25

#### 29

# Calibration and metric rectification

#### 6

#### 8

# Plane-based representations of 3D scenes

#### 20 (segmentation)

#### 31 (localization)

#### 27 (optical flow)

#### 33 (extract the main direction using EM and BIC)

# Multiple sets of VPS (basic work)

#### 30 (AW)

#### 1

# Unit sphere on VP

#### 2

#### 9

#### 3

# Surface normal in 3D processing

#### 21

#### 22

# Riemannian log and exp map

#### 12