Robust Monocular Epipolar Flow Estimation
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Image at time t

Flow image of PCBP-Flow

Flow errors
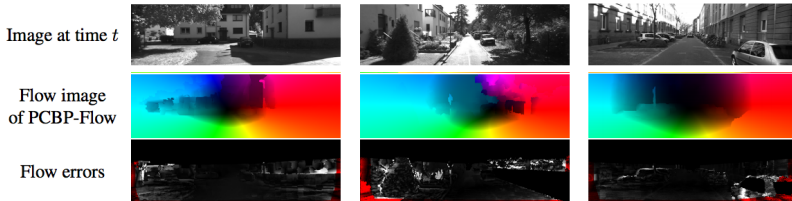
- ▶ Limitations of existing algorithms:
  - ▶ Gradient-based methods suffer in the presence of large displacements
  - ▶ Matching-based methods are computationally demanding due to the large amount of candidates required

- ▶ Contributions:
  - ▶ Adapts slanted plane stereo models to the problem of monocular epipolar flow estimation
  - ▶ Efficient flow-aware segmentation algorithm that encourages the segmentation to respect both image and flow discontinuities
  - ▶ Robust data term using a new local flow matching algorithm

- ▶ Evaluates on KITTI flow benchmark