## Sensor-specific Data Augmentation **RGB-Guided Multi-modal Fusion** RGB encoder Depth sampler Fusion block Spot sensor Raw depth Depth mask RGB image Confidence map **Dataset Generation** Apply mask 🛼 Dense depth Propagation model Sparse depth Multi-scale multi-modal fusion network Pseudo depth GT + RGB image Ground truth Sparse depth **Temporally Consistent Depth Refinement** Temporally consistent dense point clouds **Optical Flow Estimation** Frozen pretrained model $K, P_j, P_{j+1} \dots, P_i$ Spatial-temporal geometry-aware filter Dense depth 3D reprojection frames NeuFlow v2 Point cloud Flow reprojection inpainting Optical flow RGB frames