## StereoScan: Dense 3d Reconstruction in Real-time A. Geiger, J. Ziegler and C. Stiller (IV 2011)



- Real-time 3D reconstruction from high-resolution stereo sequences using visual odometry
- Sparse feature matching using blob, corner detector and descriptors
- Egomotion estimation by minimizing the reprojection error and refining with Kalman filter
- Dense 3D reconstruction by projecting image points into 3D and associating the projected points
- Visual odometry runs at 25fps and 3D reconstruction at 3-4fps
- Evaluation on the Karlsruhe dataset to GPS+IMU data and a freely available visual odometry library