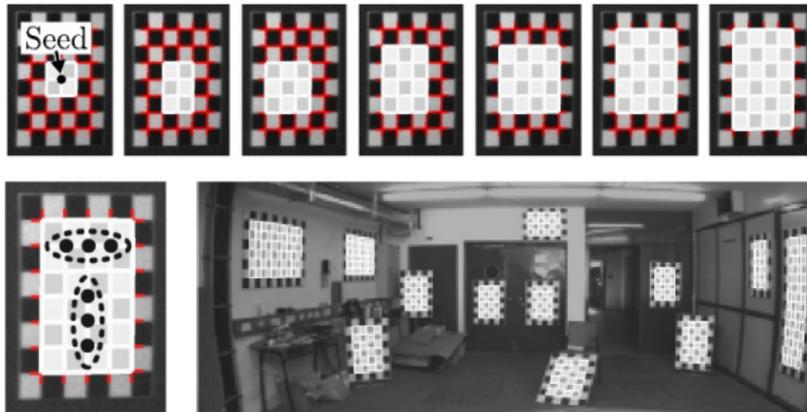


# Automatic Camera and Range Sensor Calibration using a single Shot

A. Geiger, F. Moosmann, O. Car and B. Schuster (ICRA 2012)



- ▶ Set up of calibrated systems heavily delay robotic research
- ▶ Toolbox with web interface for fully automatic camera-to-camera and camera-to-range calibration using plane checkerboard patterns
- ▶ Recovers intrinsic and extrinsic camera parameters as well as transformation between cameras and range sensors within one minute
- ▶ Checkerboard corner detector significantly outperforms state-of-the-art
- ▶ Validation using a variety of sensors such as cameras, Kinect, and Velodyne laser scanner