



**Natural Science Seminar
November 5th, 2010
Room Knott Hall 309**

ROBOT PERCEPTION

Problems, Tools, Solutions and a new Grand Challenge in Vision

Dr. Gary Bradski of Willow Garage

Robots are reaching the capabilities of science fiction stories, but are still held back by a significant bottleneck in perception as they cannot yet effectively interact with the world around them. Dr. Bradski will discuss open source, collaborative approaches to solving this problem. He supports these approaches through his work at Willow Garage where he contributes to software tools for robot operation, including ROS (Robot Operating System), OpenCV (Open source Computer Vision Library), PCL (Point Cloud Library) and REIN (Recognition Infrastructure). Dr. Bradski will discuss his new proposal to establish a Grand Challenge for Vision to spur development of perception solutions that are effective and efficient.

Dr. Gary Rost Bradski is currently a Senior Scientist at Willow Garage directing their Perception for Manipulation effort for the company's personal robots, primarily the PR2. Previously he worked at Intel Research for 10 years where he founded the Open Source Computer Vision Library (OpenCV) that is used globally in research, government and commercial applications. In 2005, Dr. Bradski led the vision team for Stanley, the Stanford robot that won the DARPA Grand Challenge autonomous race. He holds a joint appointment as Consulting Professor in Stanford University's Computer Sciences Department where he teaches a course in Robot Perception.



Sponsored by the Associate Dean for the Natural Sciences and the Computer Science Department