

IEOR announces a National Institutes of Health (NIH) research award of \$ 2.5 Million to Prof. Ken Goldberg and his colleagues at Johns Hopkins University, and welcomes two new Postdoctoral Fellows:

NIH Project: Steering Flexible Needles through Soft Tissues. This 4 year research project is a collaboration between UC Berkeley and Johns Hopkins University to develop new approaches to medical treatment using flexible needles steered from outside the body to treat specific internal locations. The Berkeley team will develop new models and motion planning algorithms based on stochastic optimization. The goal is to reduce trauma and improve accuracy for a wide range of procedures, including therapeutic imaging, chemotherapy, cell therapy, biopsy, and tumor ablation.

Dr. Ron Alterovitz returns to IEOR after spending a year at LAAS-CNRS, a national research laboratory in Toulouse, France specializing in robotics. Ron completed his Ph.D. in IEOR in 2006 and will work with Professor Ken Goldberg's Automation Sciences Lab and the UCSF Comprehensive Cancer Center. He will develop new motion planning and optimization algorithms for medical applications, with a focus on planning paths for the NIH project.

Dr. Jijie Xu will spend the coming year in the IEOR dept after earning his Ph.D in Electrical and Electronic Engineering from the Hong Kong University of Science and Technology in 2007. His Ph.D research included grasping and control of multifingered robotic hands and grasp force optimization. Jijie will work as a postdoctoral researcher with Prof. Ken Goldberg in the Automation Sciences Lab and will focus on modeling, motion planning, and control of needle steering, and deformation of soft tissues for the NIH project.