

2013 GE Catalyst Awards



GE Healthcare – Summer 2013

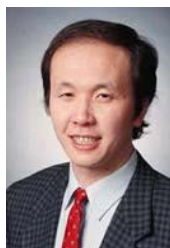
GE Healthcare Catalyst Grants are targeted at advanced computational imaging and related technologies. Three awards were announced in the summer of 2013 in the first round of the program.



Ilya Avdeev developed an expertise in finite element analysis while working at ANSYS, Inc. In this project he will work to develop efficient algorithms to model thermal deformations. These algorithms could potentially allow machines such as magnetic resonance imaging scanners to adapt and correct in real-time as heating causes sensitive parameters to change.



Adel Nasiri brings expertise in power electronics and control. Nasiri will explore load leveling techniques, applied in other settings, for use in imaging systems. The concept could lower the burden on electrical systems that supply power for imaging systems, making them less expensive to install and maintain.



Jun Zhang hopes to reduce the cost and complexity of imaging systems by applying his expertise in Bayesian-based signal processing techniques. Imaging systems no longer use film; instead, they employ closely packed detector arrays that are expensive and difficult to manufacture. In this project, Zhang will explore whether advanced signal processing techniques can allow manufacturers to use fewer detectors while achieving the same image quality.