2011 Young Investigator Research Awards

1. **Dr. Hal Alper**, The University of Texas at Austin  
   Proposal Title: Establishing a Fungal Platform for Alkane Biosynthesis

2. **Dr. Nader Behdad**, University of Wisconsin, Madison  
   Proposal Title: Closely Coupled Multi-mode Radiators: A New Concept for Improving the Performance of Electrically Small Antenna

3. **Dr. B. Andrei Bernevig**, Princeton University  
   Proposal Title: New Topological Insulators with Point-group Symmetry

4. **Dr. David M. Blei**, Princeton University  
   Proposal Title: Scalable Topic Modeling: Online Learning, Diagnostics and Recommendation

5. **Dr. William R. Boos**, Yale University  
   Proposal Title: Understanding the Global Distribution of Monsoon Depressions

6. **Dr. Alejandro Briseno**, University of Massachusetts, Amherst  
   Proposal Title: Low-dimensional Semiconductor Nanostructures for Organic Photovoltaics

7. **Dr. Joelle Frechette**, Johns Hopkins University  
   Proposal Title: Understanding the Role of Hydrodynamic Forces on Wet Adhesion

8. **Dr. MohammadTaghi Hajiaghayi**, University of Maryland, College Park  
   Proposal Title: Efficient Algorithms for Strategic Problems in Network Design

9. **Dr. Steven Jachec**, Florida Institute of Technology  
   Proposal Title: Acoustic Properties in the Presence of Shoaling and Breaking Internal Waves over Complex Topography, a Numerical Modeling Study

10. **Dr. Tonghun Lee**, Michigan State University  
    Proposal Title: Ignition and Oxidation of Bio-derived Future Navy Fuels

11. **Dr. Xiuling Li**, University of Illinois, Urbana-Champaign  
    Proposal Title: Massively Parallel Planar III-V Nanowires and Rolled-up Tubes: Novel Platforms for High Linearity Electronics and Integrated Photonic Circuits

12. **Dr. Sang-Hyun Oh**, University of Minnesota, Twin Cities  
    Proposal Title: Metamaterials on Flexible Substrates

13. **Dr. Jennifer L. Miksis-Olds**, The Pennsylvania State University, Applied Research Laboratory  
    Proposal Title: Ocean Basin Impact of Ambient Noise on Marine Mammal Detectability, Distribution, and Acoustic Communication

14. **Dr. Rajesh Rao Nadakuditi**, University of Michigan  
    Proposal Title: Fundamental Limits and Algorithms for Quiet Signal Detection, Estimation and Classification
15. **Dr. Cindy Regal**, University of Colorado, Boulder  
   *Proposal Title: Cavity Optomechanics for Wavelength Conversion of Optical Quantum States*

16. **Dr. Chengying Xu**, University of Central Florida  
   *Proposal Title: Multifunctional Ceramic Nanocomposites Reinforced with a High Volume Fraction of Well-dispersed and Well-aligned Carbon Nanotubes*

17. **Dr. Xiaorui Wang**, University of Tennessee, Knoxville  
   *Proposal Title: End-to-End Delay Guarantees in Mission-critical Wireless Sensor Networks*

18. **Dr. David Wetz**, University of Texas at Arlington  
   *Proposal Title: Investigation of Aging Phenomena in Electrochemical Storage Devices when Cycled at Elevated Rates*

19. **Dr. Peng Yin**, Harvard University  
   *Proposal Title: Self-assembly of Large-scale Shape-controlled DNA Nano-structures*

20. **Dr. Donghyun You**, Carnegie Mellon University  
    *Proposal Title: Biologically-inspired Design of Novel Fluid-dynamic Kinematics for Ocean Propulsion*

21. **Dr. Mingjun Zhang**, The University of Tennessee, Knoxville  
    *Proposal Title: Energy Efficient Swimming Mechanism: an Inspiration from Micro-scale Biological Systems*