Various Research Funding Opportunities for Undergraduates

• **Nationally**
  
  Various funding agencies: NSF, DOE, National Labs
  Professional Societies: Material Research Society
  American Physical Society
  American Vacuum Society

• **On Rensselaer campus**
  
  **NSF REU in physics**, Director Wang, [www.rpi.edu/dept/phys/REU](http://www.rpi.edu/dept/phys/REU)
  Funding: $4000/10 weeks plus free housing
  Deadline March 1, 2005

  **RPI URP (Undergraduate Research Program)** $300/$300
  Deadline for
  1. Funding: 3rd Friday of the fall and spring semesters, Feb. 4, 2005
  2. Deadline for Credit: Same as the Registrar's add course deadline, Jan. 31, 2005

  **Summer Undergraduate Research Fellowships** $3000
  Deadline usually near the end of Feb. annually
Mechanical Property of Si Spring Measured by AFM (Atomic Force Microscopy)

Linear response
Spring A: $k \sim 10 \text{ N/m}$
Spring B: $k \sim 3 \text{ N/m}$

Mechanics of patterned helical Si springs, Liu et al., J of Nanoscience And Nanotechnology, Vol. 3, No. 6, 492 (2003 Dec.).
Field Emission Current From W Nanorods Measured by STM

~23 µA at ~260 V; <3% fluctuations for >2 hrs

“Enhanced cold field emission from <100> oriented β-W nanoemitters fabricated by glancing angle sputter deposition”, Singh et al., JVST B23, 1048 (2004).