



## Issue Three

### nanoHUB.org User Forum slated for December

The inaugural nanoHUB.org User Forum will be Wednesday, December 8, 2010, at the Westin Arlington Gateway Hotel in Arlington, Virginia.

The program begins at 4 p.m. The Forum will conclude with dinner at 7 p.m.

While there is no cost to attend, space is limited. Registration is required and may be made at <https://nanohub.org/eventregistration/>.

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### nanoHUB.org to host industry research findings

Reflecting its commitment to connecting industry to nanotechnology, nanoHUB.org will be used to publish findings from a National Science Foundation-approved research project.

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*nanoHUB.org will help provide information on a new NSF and DOE-funded project to study thermoelectric generators.*

## Interview

*Dr. John Bean has served on the faculty of the University of Virginia, Charlottesville, VA, since January 1997. From 1976 to 1996 he was on the staff of the Physics Research Division of Bell Laboratories, Murray Hill, New Jersey. At Bell Labs he was both a Distinguished Member of the Technical Staff and Head of the Materials Science Research Department. nanoHUB.org interviewed Prof. Bean February 4, 2010.*

[Read More...](#)



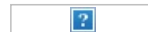
*Dr. John Bean*

## nanoHUB Tool Highlight

StrainBands was developed by Joe Ringgenberg, Joydeep Bhattacharjee, Jeffrey B. Neaton, Jeffrey C. Grossman, and Eric Schwegler. This tool uses first-principles density functional theory within the local density approximation and ultrasoft pseudopotentials to compute and visualize density of states,  $E(k)$ , charge densities, and Wannier functions for bulk semiconductors. Using this tool, you can study and learn about the bandstructures of bulk semiconductors for various materials under hydrostatic pressure and under strain conditions. Physical parameters such as the bandgap and effective mass can also be obtained from the computed  $E(k)$ .

Log on to [StrainBands](#)

## Take Our Poll:



[Click here](#)

## Upcoming Events

**Through Dec. 8: 2010 NSF Nanoscale Science and Engineering Grantees Conference, Arlington, VA**

-- Highlights the research and education activities of ongoing NSE grant projects.

[Read More...](#)

**Dec. 8: First Annual nanoHUB.org User Forum, Arlington, VA** — nanoHUB

User Group members gather for first annual meeting. [Register...](#)

**Dec. 8-10: National Nanotechnology Innovation Summit, Washington, D.C.**

Sponsored by the National Nanotechnology Initiative.

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**April 5-6, 2011:**

**NanoManufacturing Conference & Exhibits, Oakbrook Terrace, IL** — Sponsored by the Society of Manufacturing Engineers.

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## New on nanoHUB

*The Pioneers of Quantum Computing*, By David P. Di Vincenzo, IBM Research, Yorktown, NY. This talk profiles those whose vision created quantum information science. Some were famous and some were not, but all thought deeply about the puzzles and contradictions of quantum theory. [Read More...](#)

*Measuring Disaster: the magnitude of the BP oil spill*, By Steve Wereley, Purdue University, West Lafayette, IN. On May 13, 2010, Professor Wereley used optical feature tracking to estimate the volume flow of oil from the on-going BP Macondo oil field spill. Several other independent scientists also performed similar measurements at about the same time. [Read More...](#)

## Notable Quotes

*"I plan to return to Rwanda and use my knowledge of telecommunications and network connections to better my country. I want to lead Rwanda's charge to have a better*

communication system so  
there is less poverty.  
nanoHUB's tools and  
resources will be very  
helpful." Daniel  
Nizeyumukiza, Senior,  
Oklahoma Christian  
University  
— Oct. 28, 2010

"I encourage my students to  
register on nanoHUB so  
they can have the storage  
they need. If the WiFi fails  
while they are doing a  
simulation, their work is not  
lost."  
Carl-Mikael Zetterling  
Professor, Royal Institute of  
Technology, Sweden  
— Oct. 28, 2010

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