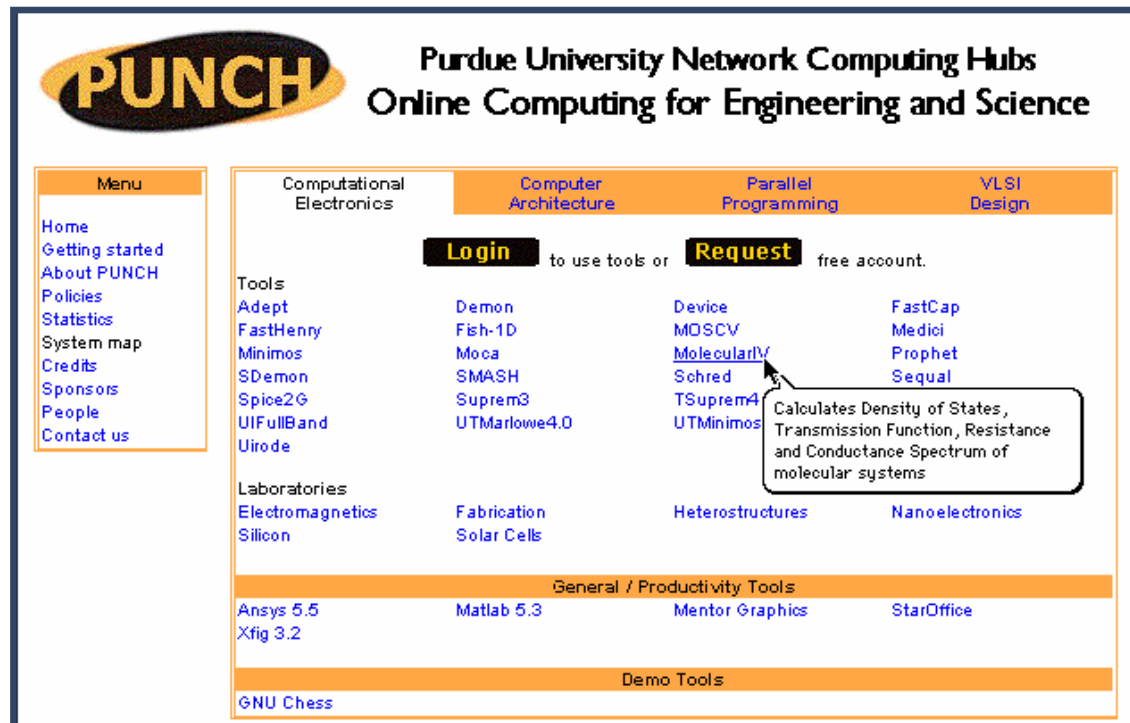


HUBzero Workshop, November 7, 2008

nanoHUB.org

Mark Lundstrom, Director
Network for Computational Nanotechnology
Discovery Park, Purdue University
West Lafayette, IN

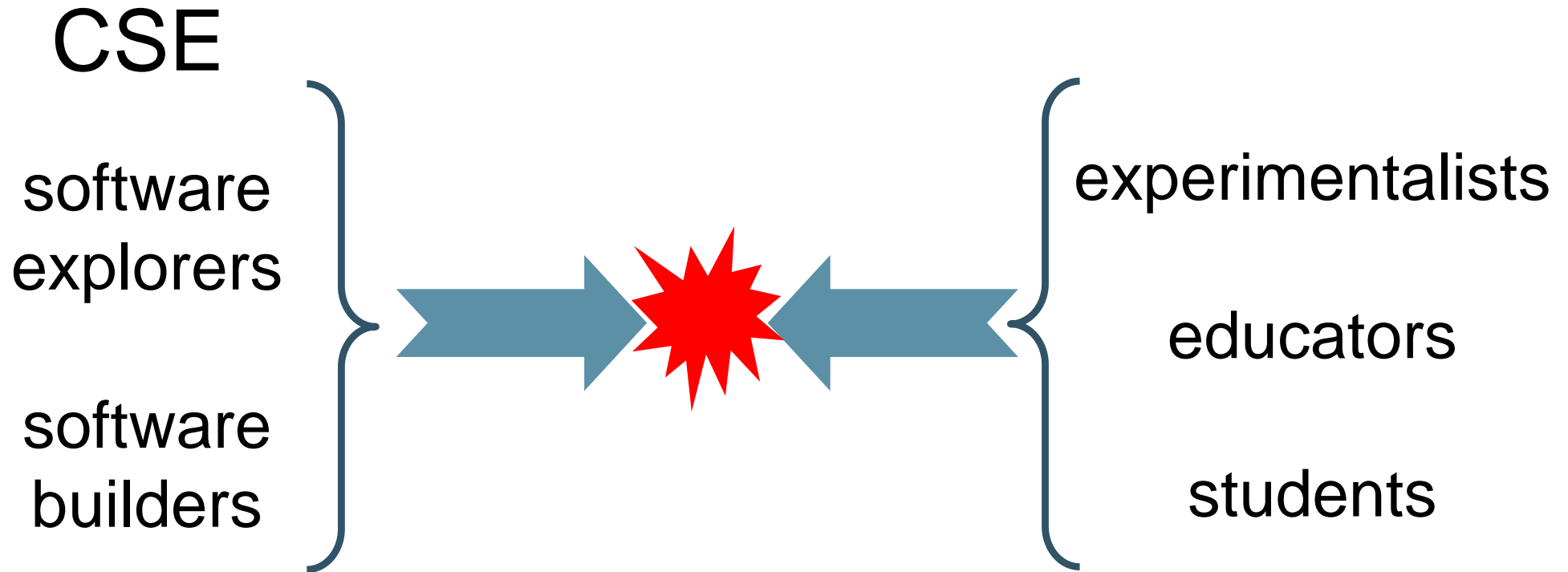
how it started



>7M hits (1994 - 2002)

Nirav Kapadia, José Fortes, Mark Lundstrom

NCN mission



why?

- 1) Foster collaborations
- 2) Accelerate the diffusion of knowledge
- 3) Give researchers and educators impact

cyberinfrastructure

www.nanoHUB.org

-simulation
-data? -equipment?

The screenshot shows the nanoHUB.org website homepage. At the top, it says "nanoHUB online simulation and more" with the NCH logo. Below the navigation bar, there's a search bar and a "Help" button. A large banner features a world map and text: "Over 60,000 annual users Join the nanoHUB community". To the right, it says "A resource for nanoscience and technology, the nanoHUB was created by the NSF-funded NCH and its development is driven by research themes in: Nanoelectronics, NEMS/Nanofluidics, Nano-Bio Devices, Nanophotonics". Below the banner, there are four main sections: "Simulate" (listing Nanoelectronics, NEMS/Nanofluidics, Nano-Bio Devices), "Research" (listing Seminars/Workshops, Collaborate, Web Meetings, User Groups), "Teach & Learn" (listing Tool Powered Curricula, Nano 101 / Nano 501, Nanocurriculum), and "Contribute" (listing Contribute Content, Give us Feedback, Take a Poll, Donations). At the bottom, there are "Events", "Announcements", and "What's New on nanoHUB" sections.

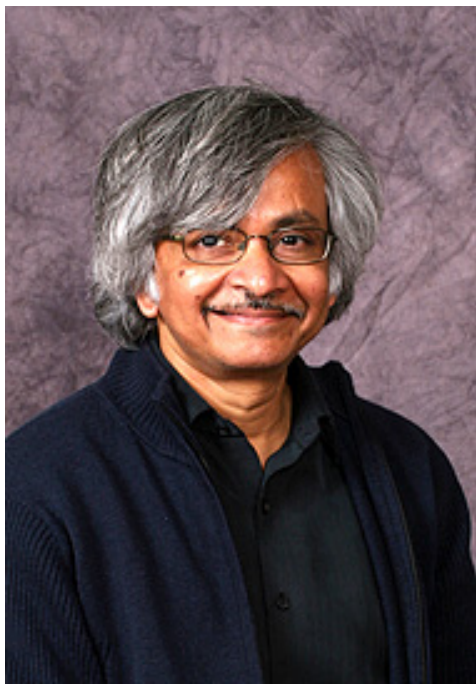
This block contains two screenshots. The top one is for "CNTbands 2.0", a simulation tool. It shows a "Structure" dropdown set to "Carbon Nanotube", a "Simulation Method" dropdown set to "Pz orbital", and a "Result" dropdown set to "Energy vs. Axial Wave Vector". The bottom screenshot is from a Microsoft Internet Explorer browser window showing an online course. The address bar shows "http://128.210.160.105/nanohub/EE659/jan13/jan132003_NanoDefault.htm". The course content includes a video of a person at a whiteboard, a diagram of a transistor with labels "Source", "Insulator", "Channel", "Insulator", "Drain", and "V₀", and a "Table of Contents" for "Lecture 1: 650 Levels Transistors".

online courses

The screenshot shows a video player interface for a "NanoSystems Biology" research seminar. The video displays a green, textured biological structure. The player has standard controls: play/pause, stop, next, previous, volume, and a progress bar. The text "research seminars" is overlaid at the bottom.

+ online meetings, Q and A, reviews,
SW development tools, statistics,
etc....

Supriyo Datta



Supriyo Datta

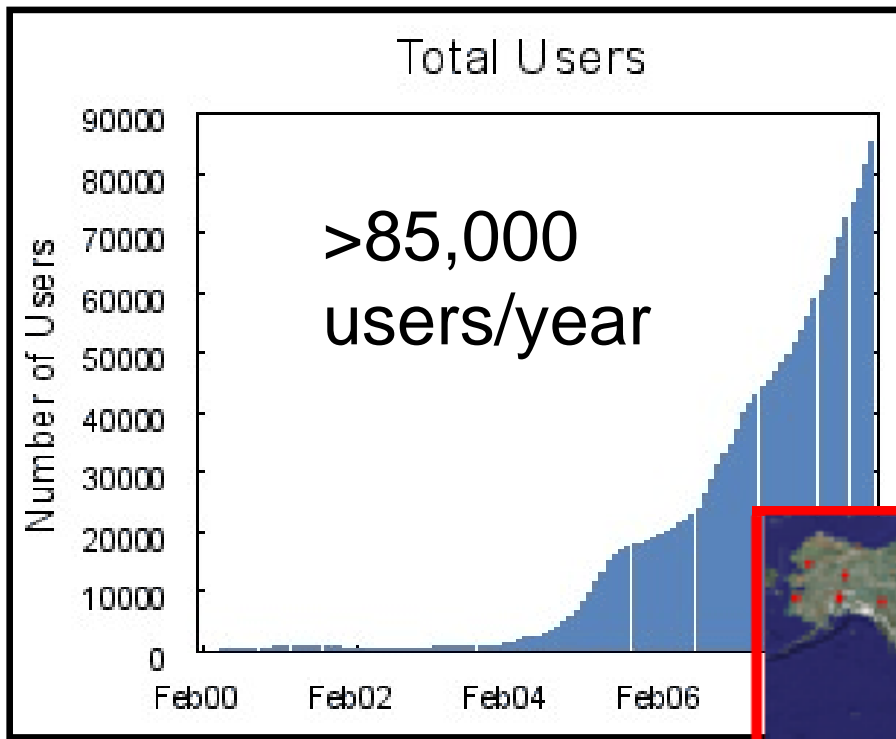
Concepts in Quantum Transport
From Atom to Transistor
Fundamentals of Nanoelectronics
Electronics from the Bottom Up

...

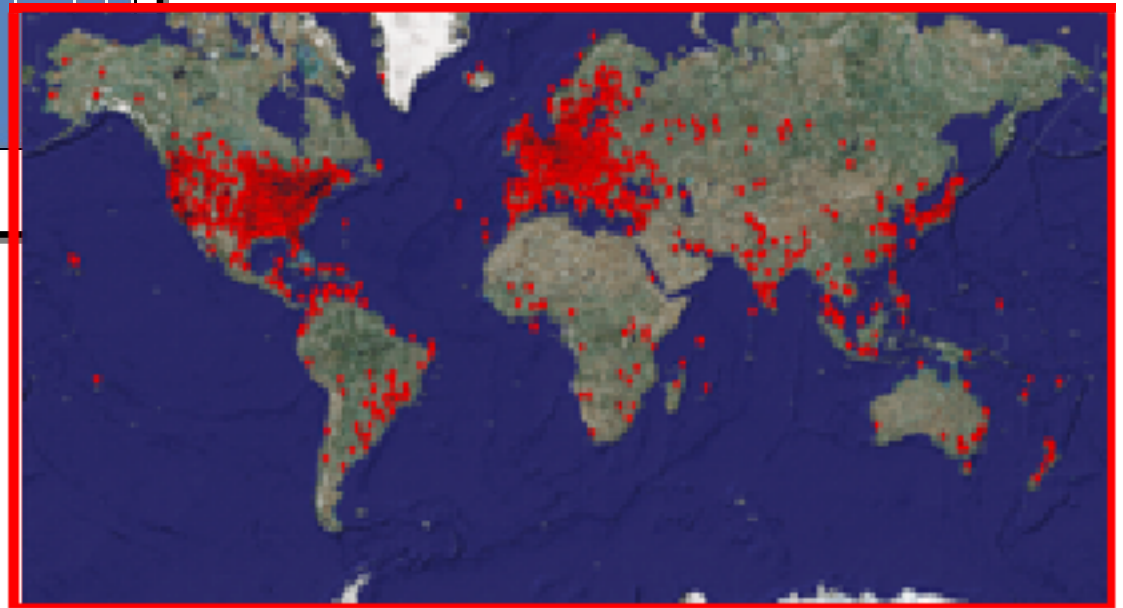
16,065 nanoHUB users/viewers last year

'datta' is *the* most popular search term on the nanoHUB

impact



41% USA



benefits for PI's, programs, universities

- visibility and global presence
- impact
- more effective collaborations / partnership