



Workshop on Nanoinformatics Strategies

Hosted by the NSF National Nanomanufacturing Network
Westin Arlington Gateway Hotel, Arlington VA
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Purpose. *Nanoinformatics* involves the development of effective mechanisms for collecting, sharing, visualizing, modeling and analyzing information relevant to the nanoscale science and engineering community. It also involves the utilization of information and communication technologies that help to launch and support efficient communities of practice. Nanoinformatics is necessary for comparative characterization of nanomaterials, for design and use of nanodevices and nanosystems, for instrumentation development and manufacturing processes. The purpose of this workshop is to identify and prioritize nanoinformatics needs, discuss ongoing activities and draw up strategies for the future. Participants include cognizant leaders from national nano networks and centers who are actively engaged in building effective information and communication resources, as well as informatics experts from other research communities who can inform and advise.

Workshop Goals. Identify nanoinformatics needs, challenges and priorities. Discuss informatics activities currently underway that work to address needs in various research, development and education sectors (NCN, EHS, NNN, NIST, NCLT, nanomaterials and others). Share best practices on cutting edge techniques in data mining, visual analytics, Web 2.0 technologies, literature analysis, data standards, digital clearinghouses, web-based communication tools, and related topics, including those from the other fields (e.g., caBIG, bioinformatics, computer science and others). Connection to bioinformatics, and other informatics areas. Discuss interconnecting databases and mechanisms for defining the ontology of terms. Identify and prioritize strategies best suited for catalyzing nanotechnology research, development and education.

Participants – A small group of people that well understand the informatics needs for the nanoscale science and engineering area and others who are experts in informatics technologies in the broader sense.

Co-Organizers:

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Relevant Tags <metadata>: Informatics, open source, artificial intelligence, communities of practice, networks, data mining, visual analytics, optimization, nanomaterials properties, metadata, computational science, knowledge management, data standards, digital libraries, Web 2.0, semantic web, grid computing, distributed design & manufacturing, cyberinfrastructure, linked databases, terms of use, ontologies, taxonomies, social networks.