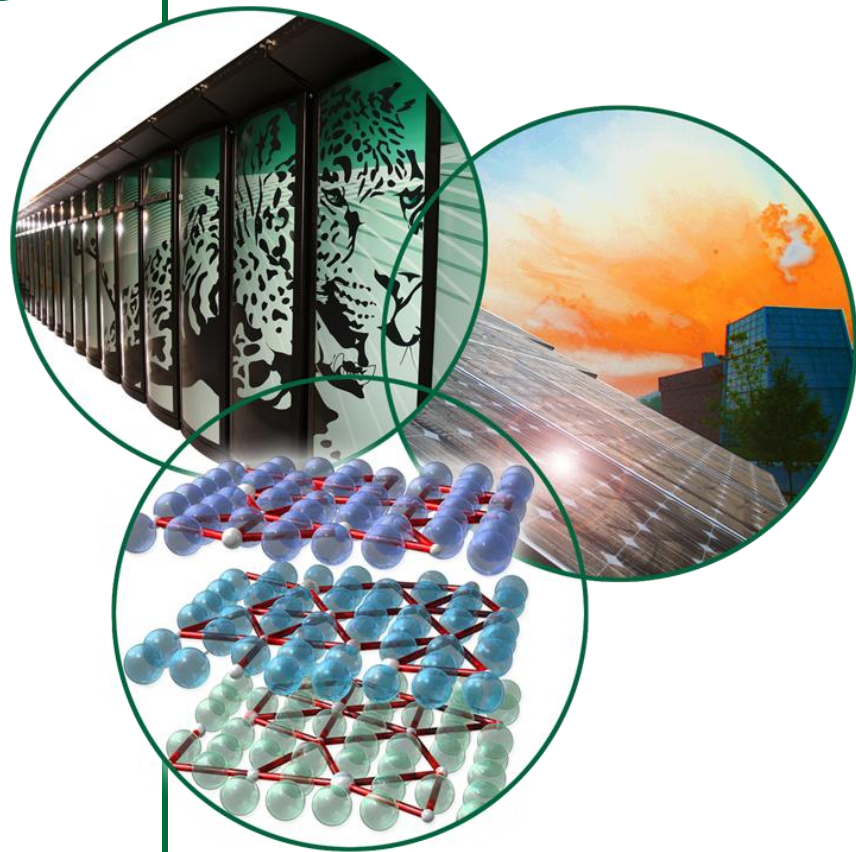


# ICAT Experience at SNS

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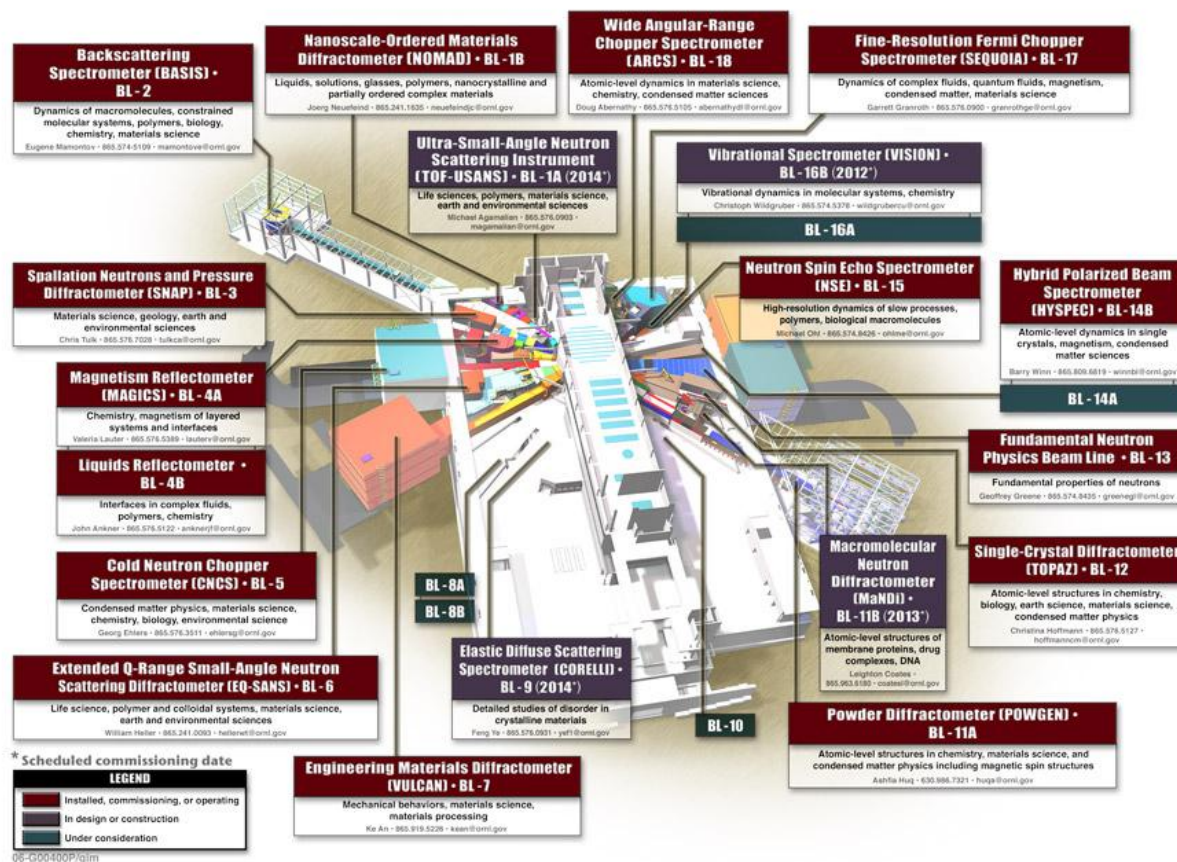
March 20, 2012



# Spallation Neutron Source at the Oak Ridge National Laboratory



# SNS Instrument Layout



# ICAT2 at Work

- ICAT2 has been in production since the summer of 2006 when SNS committed the first instrument BASIS. Currently, SNS has 15 running instruments, and ICAT2 has collected metadata for all 15 instruments since inception
- ICAT2 is currently used at SNS in 3 different areas:
  - 1) Utilities such as findNexus that queries the ICAT2 restful web service to search file locations for a given instrument and run number.
  - 2) The Mantid FileFinder class makes restful web service call to ICAT2 to find file locations for a given instrument and run number.
  - 3) SNS Portal (web interface) to search and download experiment data.

# ICAT4 in Business

- ICAT4 has been in production since Feb. 14, 2012, the beginning of our latest run cycle.
- We have implemented ICAT4 driven automated data reduction and deployed it to production for the POWGEN instrument. We are currently testing the ICAT4 driven automated data reduction for the NOMAD, REF\_L, and REF\_M instruments.
- A summer student will be on board in June to back catalog into ICAT4 for all SNS runs conducted from the first SNS experiment to Feb. 14, 2012, when ICAT4 made it to the SNS cataloging business.



# ICAT4 Clients and Wish List

- Regenerated SOAP ICAT4 binding interface in Mantid.
- Working on Mantid to be able to interface with ICAT3 for ISIS and ICAT4 for SNS simultaneously.
- Topcat is deployed to testing machines.
- Wish to have a new ICAT4 Web service to return file location for a given instrument and run number for anonymous users. This will enable us to completely retire ICAT2 and have all our client applications make queries to ICAT4 only. Other desired features include getting the latest run for a given instrument, and getting the runs cataloged during the last 24 hrs.