

19th Synchrotron Radiation conference took place in Siberian Synchrotron and Terahertz Radiation Centre (SSTRC) in Novosibirsk on 25-29 June 2012.



1: Participants of the 19th Synchrotron Radiation Conference in Novosibirsk

The Siberian Synchrotron and Terahertz Radiation Centre (SSTRC) has got two facilities: synchrotron on the base of particle accelerator with about 2000 hours of operational time annually (and another 4000 hours devoted to particle physics), and laser facility for measurements in terahertz frequency range.

SSTRC is a major supplier of synchrotron technology: 3 of 4 synchrotrons currently running in Russia have been built by SSTRC (with the 4th one donated by Netherlands and re-assembled in the Joint Institute for Nuclear Research in Dubna, Moscow region), also the research quantum-beam-based research centre in South Korea is guided by Novosibirsk specialists. The research output from Siberian

centre seems to be most intensive exceeding that of three other synchrotron facilities in central Russia; SSTRC user community, however, is small compared to the major European synchrotron centres, and counts a few hundred users only.

Other Russian synchrotron centres were represented by a few reports (devoted to particular research/measurements) from KIAE (Kurchatov Institute for the Atomic Energy) and a status report from the Engineering Centre in Zelenograd.

Major foreign participants of the conference were represented by Korean WCI Center Quantum-Beam-based Radiation Research (<http://www.wci.re.kr/center/qrr.jsp>) that is under development now as well as by the research facility of the University of Fukui, Japan (http://www.u-fukui.ac.jp/eng/introduction/research_center.html, http://fir.u-fukui.ac.jp/Eng_index.html) that runs X-ray and neutron sources as well as develops compact terahertz sources (gyrotrons) that can be deployed along with larger X-ray and neutron sources for taking simultaneous measurements in different frequency ranges. Dr. Idehara from the University of Fukui expressed a principal interest in PaNdata and was left with a contact information and a PDF version of our presentation. A younger researcher from Korean centre was also approached between the conference sessions, and left with our contact information and presentation but was not ready for any further discussion perhaps owing to his junior status. Yet as the Korean centre is headed by a Russian director from Novosibirsk there are opportunities to further outreach them if PaNdata finds it interesting.

There were other presentations on the conference of research/measurements made with the participation of research centres and universities in Germany, Spain, Finland, Brazil, Mexico, and China but all such reports were made by Russian participants of

the appropriate collaborations in parallel sessions so there were not many opportunities, or great sense for networking with them in addition to the delivery of our PaNdata presentation on the plenary session.

After the plenary session, there was an opportunity to address the weekly IT meeting in the conference host institution and the owner of the Siberian synchrotron facility: Budker Institute of Nuclear Physics. PaNdata was presented on that meeting with a skew towards benefits that a common IT infrastructure can bring to the IT departments. The discussion that followed showed that despite a principal interest there is no driving force to adopt PaNdata technologies or policies. The data management in Siberian synchrotron facility is likely to remain the responsibility of experimental teams; the user management is not seen as a problem either owing to relatively small numbers of users (hundreds, not thousands).

Next all-Russian synchrotron conference is likely to be held in Moscow on the base of KIAE (Kurchatov Institute for Atomic Energy) that is a major holder of Russian research funds including contributions to European synchrotron facilities. In terms of synchrotron technology expertise and research output, Novosibirsk beats other Russian synchrotron centres but politically and perhaps from IT perspective, too, KIAE may be better positioned as a potential PaNdata partner.

After visiting Novosibirsk, there was another opportunity to present PaNdata in the seminar in IHEP (Institute for High Energy Physics, Moscow region). IHEP runs proton accelerator that is now under consideration as a source for proton tomography, also a few successful experiments have recently been run on the acceleration of

carbon ions with the applications in biomedicine. These research techniques make the lifecycle of experiments in IHEP closer to those being run on synchrotron and neutron sources with a potential to apply data modelling, data management, and user management capabilities developed in PaNdata to other research fields. So the part of PaNdata presentation devoted to the data lifecycle was of a particular interest for the seminar participants who were invited to join ICAT open source project, and NOBUGS series of workshops.