



ess bilbao initiative workshop

Multi-MW Spallation Neutron Sources: Current Challenges and Future Prospects

preliminary
programme

Monday, 16th March 2009

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| 09:00 - 09:30 | Welcome | |
| 09:30 - 11:00 | Overview of Multi-MW Spallation Neutron Sources | |
| | User's point of view | |
| 11:00 - 11:30 | Coffee Break | |
| 11:30 - 13:00 | ESS Bilbao Machine Concept | |
| | Charge of Parallel Sessions | |
| 13:00 - 14:30 | Lunch | |
| 15:00 - 16:00 | Beam Dynamics & Accelerator Components | Target |
| | SNS Experience | Target Options for a 5 MW Spallation Source Design Concept and Experience with Liquid Mercury Target at JSNS and SNS |
| | Overview of Multi-MW accelerators projects | Concepts and R&D towards mitigation of the effect of pressure waves in mercury |
| 16:00 - 16:30 | Coffee Break | |
| 16:30 - 17:30 | Session Summary | Discussion on mercury target for ESS |
| | | Session Summary |
| 17:30 - 19:00 | Poster Session | |

Tuesday, 17th March 2009

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| 09:00 - 11:00 | Beam Dynamics | Accelerator Components | Target |
| | Simulation of accelerator components | Front End for High Intensity | Design concepts of and lessons learned from the SINQ High Power |
| | | RF structure comparison for low energy acceleration | Concept and development work for the LANL materials test station |
| | Low Energy Transport and space-charge compensation schemes | High duty cycle RF Power Couplers | Concept and Technology of the PbBi-Target for MYRRHA |
| Spokes cavities for low-medium energy | | Discussion on PbBi-Target for ESS | |
| 11:00 - 11:30 | Coffee Break | | |
| 12:00 - 13:00 | Beam Dynamics | Accelerator Components | Target |
| | Handling of Beam Losses | Spokes vs. Elliptical cavities for medium-high energy | SNS Studies towards a rotating solid target |
| | | Pulse forming devices for high duty factor operation | The CSNS rotating target concept and test programme |
| | Beam Diagnostics | Overview of cryo-modules for proton accelerators | Design of the target station of ESS-2003 |
| | | Discussion on rotating target options for ESS | |
| 13:00 - 13:30 | Session Summary | Session Summary | Session Summary |
| 13:30 - 15:00 | Lunch | | |
| 15:00 - 16:30 | Beam Dynamics & Accelerator Components | Target | |
| | Fault Tolerance | Nouvelle concepts in Target, Reflectors, Moderator integration | |
| | | Discussion on moderator-reflector neutronics for different pulse lengths | |
| | RF Architecture | Radiation effects in high power spallation target systems (life time estimation) | |
| ESS Bilbao work programme towards a 5 MW target | | | |
| 16:30 - 17:30 | Session Summary | Session Summary | |

Wednesday, 18th March 2009

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| 09:00 - 11:00 | Group discussion | Group discussion | Group discussion |
| | Collaborative research priorities | Collaborative research priorities | Collaborative research priorities |
| 11:00 - 12:00 | Break/Convenors preparation | | |
| 12:00 - 13:30 | Group Reports | | |
| 13:30 - 15:00 | Lunch | | |
| 15:00 - 17:00 | Final Discussions, Workshop Conclusions and Wrap up | | |