

Evaluation of Experiment Proposals at GSI

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PAC Structure and Organization at GSI



General PAC (G-PAC)

Topics:

- Hadron and Nuclear Physics
- Atomic Physics
- Detector Tests (incl. tests for FAIR collaborations)

Members:

Bertram Blank Yorik Blumenfeld Wilton Catford Paolo Giubellino (Chair) Ronnie Hoekstra Stefan Leupold Norbert Pietralla Hendrik Schatz Reinhold Schuch Andreas Türler Michiharu Wada Matthias Weidemüller CEN Bordeaux, France CERN-ISOLDE, Switzerland Univ. Surrey, UK IFNF Turin, Italy KVI Groningen; Netherlands Uppsala Univ., Sweden TUD, Germany MSU, USA Stockholm Univ., Sweden PSI, Switzerland RIKEN, Japan Univ. Heidelberg, Germany

PHELIX and Plasma Physics PAC (PPAC)

Topics:

- High Energy Density Physics
- EOS, phase transitions, and transport properties
- Heavy ion interaction with plasma
- Proton acceleration (imaging, injection in accelerator)
- High field physics

Members:

Sylvie Jacquemot Grant Logan Gilles Maynard Dieter Schneider, Chair Oswald Willi LULI, Palaiseau, France LBNL, Berkeley, USA LPGP, Univ. Paris-Sud, France LLNL-PAT/NIF, USA Univ. Düsseldorf, Germany

Biophysics and Radio-Biology PAC (Bio-PAC)

Topics:

- Biological radiation damage
- Therapy related research (clinical radiobiology, moving targets)
- Space-related research (biological effects)
- Modeling (physics and biology)
- Imaging and Dosimetry

Members:

Francis Cucinotta Dudley Goodhead

Thomas Haberer Amy Kronenberg Günther Reitz (Chair) Laure Sabatier NASA Johnson Space Center, Houston, USA em. Director Med. Res. Council Rad. and Genome Stability Unit, Oxford, UK Heidelberg Ion-Beam Therapy Center (HIT), Germany LBNL, Berkeley, USA German Aerospace Center (DLR), Germany CEA, Fontenay-aux-Roses, France

Materials Research PAC (Mat-PAC)

Topics:

- Materials modification by ion beams
- Physics and technology of nanostructures
- Problems of radiation hardness

Members:

Pavel Apel Serge Bouffard Klas Hjort Werner Wesch, Chair Flerov Laboratory, Dubna, Russia University of Caen, France University Uppsala, Sweden Universität Jena, Germany

Program Advisory Committee for FAIR-Related Beam Time Proposals (F-PAC)

Organization:

- F-PAC is an internal advisory committee
- The FAIR technical division and the FAIR collaborations are represented
- Proposals can be submitted any time (no calls or deadlines)
- Committee meetings are done as needed, at least once per year

Topics:

- Irradiation experiments for FAIR accelerator components
- Beam diagnostics and accelerator controls development for FAIR
- Beam lifetimes and charge exchange cross-sections of low-charged heavy ions

Members:

W. Müller

- L. Schmitt
- J. Stadlmann, Chair
- C. Trautmann
- H. Weick

CBM Collaboration, Technical Coordinator

PANDA Collaboration, Technical Coordinator

GSI, Synchrotrons Department

GSI, Materials Research Department

GSI, NUSTAR - FRS, Nuclear Structure

Classification of Proposals

Classification of Proposals in Categories

- A: 'must' be done;
- C: deferred;
- D: rejected

B-ranking (can be done if beamtime available) was abandoned in All-PAC01 since B-proposals will not be scheduled due to the large backlog of A-rated experiments.

- Experiments which are dormant are re-evaluated after three years
- Experiments which have had significant beamtime are asked for reports on the PAC meetings
- Short annual status reports are requested from all active experiments

Beam Time Distribution between the PACs

Beam time shares are fixed in yearly All-PAC meetings



Yearly beam time shares as used in the last round of PAC meetings in fall 2011 in 8-hour shifts. Additional 40 shifts/year at ESR are reserved for the commissioning of the ion trap facility HITRAP.

Accelerator operation 2005 - 2014



Backlog of Approved Beamtime

	total backlog (Dec. 2011)	total backlog (estimation for Dec. 2012)
UNILAC	1205 shifts	650 shifts
SIS	734 shifts	320 shifts
ESR	522 shifts	350 shifts
PHELIX	393 shifts	160 shifts

- Beam time quotas were reduced by for the PAC meetings (F-PAC, G-PAC, PPAC, Mat-PAC) in 2010 and 2011
- From 2012 on launching of proposal calls and regular PAC meetings are paused to adjust the backlog to the reduced accelerator availabilities

Estimated backlog end 2012 by research areas



Leftover shifts: proposals which have used more than 75% of their shifts

Backlog Development



Backlog after the last three G-PAC Meetings and estimation for end of 2012

Summary / Outlook

- Program Advisory Committees for different research areas evaluated and followed progress of experiment proposals
- The beam time shares of the different PACs have been adjusted in All-PAC meetings
- The backlog has been reduced in preparation for the longer shut-down periods due to the construction of FAIR
- Currently no proposal calls launched
 → PACs suspended

