



PSI, Villigen
January, 2000

**MINUTES "BESCHLUSSKONFERENZ"
OF THE USERS MEETING BV 30 AT PSI
January 17/18, 2000**

present: Prof. R. Eichler (Chairman)
Dr. K. Gabathuler
Dr. D. Herlach
Dr. Q. Ingram
Dr. E. Morenzoni
Dr. C. Petitjean (secretary)
Dr. R. Rosenfelder
Dr. P.A. Schmelzbach
Dr. E. Steiner

excused:
Dr. W. Fischer
Dr. G. Goitein
Prof. H. Keller
Prof. J.V. Kratz
Dr. T. Stammbach
Prof. P. Truöl

1. Approval of Experiments

The recommendations of the BVR research committee, the μ SR research committee and the Philips Cyclotron committee (see minutes) are acknowledged.

For the procedure of approvals with financial consequences we point again to the rules issued in the introduction of the protocol BV28.

New Proposals

- R-99-06.1 Precision Measurement of the μ^+ Lifetime(G_{μ}) with the FAST Detector
J. Kirkby, M. Pohl et al., CERN, Geneva, Berkeley, Bologna, PSI, Naples, Amsterdam
Approved, subject to a memorandum of understanding, area π M1.
- R-00-01.1 Measurement of Total π^-p Charge Exchange Cross Sections at Low Energies
E. Friedman et al., Jerusalem, Tübingen
Deferred to the next meeting, see committee recommendations BV30.
- R-00-02.1 A Measurement of Muon Multiple Scattering for Ionisation Cooling Studies
T.R. Edgecock et al., Rutherford Appleton Lab., Birmingham, CERN, London
Not considered, see committee comments BV30.
- R-00-03.1 Proposal for an Ultracold Neutron Facility at PSI
M. Daum, J. Sromicki, A. Serebrov et al., PSI, ETHZ, PNPI Gatchina, ILL Grenoble, Fribourg, Cracow, Charlottesville
Basic approval according to the committee recommendation BV30: The committee strongly supports the idea of building an intense UCN source at PSI with the intent of improving the accuracy of the measurement of the neutron EDM by an order of magnitude. It considers this as a leading experiment for nonstandard T-violation and invites the collaboration to submit a proposal for the proper experiment. The proposed design of an ultracold neutron facility is considered to be robust and seems technically feasible within the financial frame given. Therefore the committee recommends that PSI takes the necessary steps to install it.
- R-00-04.1 Measurement of ^{11}N Ground State via the $^{11}\text{B}(\pi^+\pi^-)^{11}\text{N}$ Reaction
K. Föhl et al., Edinburgh
Approved with low priority, 3 weeks with LEPS in π E3 area.
- RA-00-01 Flux Line Lattice of Conventional 3D Superconductors
Dalmas de Réotier, Grenoble, Delft, PSI
Approved. Recommendation: 3 days GPS and LTF (shared).
- RA-00-02 Spin and Charge Dynamics in Hole and Electron Doped High- T_c Superconductors
Niedermayer-Bernhard, Konstanz, MPI Stuttgart, Lower Hutt, Warsaw
Approved. Recommendation: 7 days GPS and 5 days LTF (shared).

- RA-00-03 μ SR in $(\text{Ca}_x\text{La}_{1-x})(\text{Ba}_{1.75-x}\text{La}_{0.25+x})\text{Cu}_3\text{O}_y$ (CLBLCO)
Keren, Kanigel, Mendels, TIT Haifa, Paris Sud
 Approved. Recommendation: 3 days GPS and 3 days DOLLY.
- RA-00-04.1 High Pressure μ SR Studies on Rare Earth Metals and Metallic Compounds
Hartmann, Kalvius, Uppsala, TU München, Virginia State, Hiroshima
 Approved. Recommendation: 25 days μ E1 (high pressure set-up).
- RA-00-05.1 Study of the Transition from Ferromagnetic Order to the Paramagnetic State in SrCaRuO_3
Niedermayer, Budnick, Konstanz, Storrs, MPI Stuttgart, Warsaw
 Approved. Recommendation: 3 days GPS and LTF (shared).
- RA-00-06.1 μ SR Studies of MnSi under Applied Pressure
Uemura, Heffner, Kalvius, Columbia, LANL, TU München, ETHZ, Riverside, Leiden, McMaster
 Approved. Recommendation: 11 days μ E1 (high pressure set-up).
- RA-00-07.1 μ SR on Ferroelectromagnetic Perovskites
Nieuwenhuys, Heffner, Leiden, LANL, Bombay, Riverside
 Approved. Recommendation: 6 days GPF.
- RA-00-08.1 Spin Fluctuations in ABX_3 Halides
Gubbens, Kaiser, Visser, Delft, Grenoble
 Approved. Recommendation: 3 days GPS.
- RA-00-09.1 μ SR and Spin-Vacancy-Induced Magnetism in Low-Dimensional Quantum Spin Systems (Effects of Dimensionality)
Lappas, Prassides, FRT Hellas, Sussex, ETHZ
 Approved. Recommendation: 3 days.
- RA-00-10.1 Magnetic Phase Diagram of $\text{Cu}(\text{Fe}_{1-x}\text{Ga}_x)\text{O}_4$
Semadeni, PSI, Kranoyarsk
 Approved. Recommendation: 2 days GPF.
- RA-00-11.1 Comparative Study of Magnetic Properties of RFe_4Al_8 and RFe_4Ge_2 ($\text{R}=\text{Y}, \text{TB}, \text{Ho}$)-Compounds, Complementing Neutron Scattering Investigations
Schobinger, Schenck, ETHZ, Amsterdam
 Approved. Recommendation: 4 days DOLLY.
- RA-00-12.1 μ SR Study of the Spin-Glass System $\text{La}_{1-x}\text{Sr}_x\text{CoO}_3$
Sikolenko, Raspopina, JINR, LNS, PSI
 Approved. Recommendation: 7 days GPD.
- RA-00-13.1 A μ SR Study of the Lightly Doped Manganites $\text{La}_{1-x}\text{Sr}_x\text{MnO}_3$ and $\text{La}_{1-x}\text{Ca}_x\text{MnO}_3$, for $x \leq 0.3$
Getalov, Koptev, Arsenov, Gatchina, MISIS Moscow, PSI
 Approved. Recommendation: 7 days GPD.

- RA-00-14.1 Complex Magnetism in $\text{Ce}(\text{Rh}_{1-x}\text{Ru}_x)_3\text{B}_2$
Wiesinger, Wien, St. Andrews
 Approved. Recommendation: 1 day GPS and LTF (shared), 6 days DOLLY.
- RA-00-15-1 μSR Studies of Disorder-Driven Non-Fermi-Liquid Behaviour in Heavy-Fermion Alloys
MacLaughlin, Heffner, Nieuwenhuys, Riverside, LANL, Leiden, Gainesville, Los Angeles, San Diego
 Approved. Recommendation: 6 days of GPS and LTF (shared).
- RA-00-16.1 Effects of Dimensionality and Quantum Criticality on Heavy-Fermion Superconductivity and Magnetism
Heffner, MacLaughlin, Nieuwenhuys, LANL, Riverside, Leiden, Los Angeles, München
 Approved. Recommendation: 6 days of GPS and LTF (shared) and 4 days $\mu\text{E}1$ (high-pressure set-up).
- RA-00-17.1 μSR -Investigation of the Magnetic Behavior of Quenched and Annealed Fe_2Val
Süllow, Klauss, Litterst, TU Braunschweig, NRIM Tsukuba
 Not approved. No beam-time allocation.
- RA-00-18.1 Muons in Sulphur and Selenium
Reid, Cox, PSI, ISIS, Liverpool
 Approved. Recommendation: 2 days GPS and 9 days GPD.
- RA-00-19.1 A μSR Study of the Low Temperature Magnetic Properties of the Molecular Cluster Fe_8
Lascialfari, Carretta, DeRenzi, Sangregorio, Pavia, Parma, Firenze
 Approved. Recommendation: 5 days GPS.
- RA-00-20-1 μSR Studies of High-Spin Clusters
Prassiedes, Sussex, ETHZ, ICM Barcelona
 Approved. Recommendation: 3 days of GPS and LTF.
- RA-00-21.1 Reorientational Dynamics and Host-Guest Interactions of Organic Radicals in Anisotropic Environment
Roduner, Stuttgart, UBC & TRIUMF, Poznan, Unilever
 Approved. Recommendation: 3 days GPD and 36 days $\pi\text{E}3$ (ALC).
- RA-00-22.1 Low Temperature Spin Fluctuations in Spin-Liquid $\text{Yb}_3\text{Ga}_5\text{O}_{12}$ (post deadline)
Hodges, Saclay, Grenoble, Delft
 Approved. Recommendation: 3 days LTF.
- Z-00-01.1 Studies of No_y heterogeneous atmospheric chemistry using the short-lived tracer ^{13}N
M. Ammann et al., PSI, Bern
 Approved, 60 shifts.

Z-00-02.1 Chemical properties of the heaviest elements
K. Eberhardt et al., Mainz, Oslo, Darmstadt, PSI, Bern, Göteborg, Delft
Approved with high priority, 86 shifts.

Adendum

R-97-01.2 Measurement of the π^-p analyzing power at low energies with LEPS and a polarized scintillator target
R. Meier et al., Tübingen, PSI, TRIUMF, Boulder, Edinburgh, Jerusalem
Approved, 5 weeks with LEPS in $\pi E3$ area.

Letter of Intent

Z-00-03 Astatine-211
D. Neri et al., Zürich
Accepted for short production periods, subject to submission of a proposal, see committee recommendations PC30.

2. Beam Schedules, Target E, SUSI

The ring accelerator will start production in mid March 2000. 40 regular weeks of 590 MeV beam at 1.5-1.7 mA (SINQ 1.0-1.2 mA) are scheduled until December 22, see "Betriebsprogramm" in the attachments.

The beam schedules for 2000 as presented by the coordinators are endorsed. However, the allocations 2000 II to those experiments which are invited for a progress report at BV31 (June 2000) are only preliminary. As usual, the schedule will be regularly updated and made available on the internet.

Since the meson program 2000 can be accommodated with the (4 cm) short target E, it was decided to keep this target for the whole year 2000 in operation.

The SUSI spectrometer in area $\pi M1$ which stopped operation many years ago, will be removed during 2000 to gain space for future new installations.

3. Acknowledgements

Prof. Karl Maier, University of Bonn, has retired from the presidency of the μSR user community (BVRA). We thank him very much for his enthusiastic lead since 1995, which has brought the solid state science at PSI into full expansion and recognition!

Prof. Hugo Keller, University of Zürich, has been elected as the new BVRA president. We wish him much success!

Prof. Milan Locher has retired from the BVR research committee, where he has acted since the 70th as scientific secretary of the committee. Unforgotten are his careful wordings of the often very difficult committee recommendations that had to be formulated throughout the years. Well known was his expertise in the many pion nucleon proposals that had to be judged by the committee. We thank Milan for his great, almost lifelong work and wish him all the best in his future!

4. Varia

The next users meeting BV31 is scheduled for June 27-28, 2000, while PC31 will take place on June 19, 2000. The deadline for beam requests, new proposals and addenda is **May 15, 2000**.

Attachments:

- PSI 590 MeV Program March-August 2000
- Betriebsprogramm (including Injector I)
- the recommendations of the scientific committees can be found on the internet:
<http://www.psi.ch/ltp/bvr.html>

PSI 590 MeV Programm March-August 2000

Number of week	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
Date of Monday	13.3	20.3	27.3	3.4	10.4	17.4	24.4	1.5	8.5	15.5	22.5	29.5	5.6	12.6	19.6	26.6	3.7	10.7	17.7	24.7	31.7	7.8	14.8	21.8	28.8	4.9	
590 MeV accelerator, injector I																											
590 MeV accelerator, injector II																											
Area	Proposal #	Spokesman	Experiment	Target E: 4 cm																							
πM1		Renker	Detector-Tests																								
		Mattig	Tests CMS																								
		Eichler	Praktikum ETH																								
		Weinberg/Gregor	Tests																								
		Conrado	Tests																								
		Streuemann	Tests																								
πM3		Herrsch (Coord)	RA-Program																								
πE1	R-89-01	Pocanic	π [±] Decay																								
		Gabathuler	Test CMS																								
	R-89-05	Mori	μ e γ																								
πE3	R-97-06	Prieels	ξ [±] parameter																								
	RA	RA-program	μSR																								
	R-89-07	Hertzog	μ lifetime																								
	R-97-01	Meier	A(ηπ)																								
	Separator 2																										
πE5	R-87-03	van d. Schaaf	Sindrum II, PMC																								
	R-97-01	Gotta	π Mass																								
	Separator 2																										
μE1	RA	RA-program	μSR																								
μE4	R89-03	Kottmann	Testaufbau																								
		Eichler	Praktikum ETH																								
	RA	RA-program	μSR																								
	R-97-05	Kammelle/Leitman	μp Capture																								
NA2		Hajdas/Zehnder	PIF																								
		Victoria	PIREX																								
NA3		Pedroni-Goitein	p-Therapy																								
			Special exp./Dosimetry																								

NA Areas For Details see weekly program

BETRIEBS PROGRAMM 2000												BETRIEBS PROGRAMM Januar-Juli 2000											
Inj. 2 und Ring												Inj. 1											
Mo	Di	Mi	Do	Fr	Sa	So	2000	Mo	Di	Mi	Do	Fr	Sa	So	Experiment								
1	3-9 Jan	Infrastrukturarbeiten					1	3-9 Jan	Infrastrukturarbeiten														
	10-16 Jan	x (Schaltertest)					10-16 Jan	SHUTDOWN															
	17-23 Jan						17-23 Jan	SHUTDOWN															
	24-30 Jan	SHUTDOWN INJECTOR 2, RING und P-KANAL					24-30 Jan																
5	31-6 Feb						31-6 Feb	X					Parasitär										
	7-13 Feb						7-13 Feb			BD	BD			Eberhardt 130 180 (C)	Z-00-02								
	14-20 Feb	> Ring: HF- Tests mit geschlossenem Bunker					14-20 Feb	X															
	21-27 Feb	> Inj 2: HF- Tests mit geschlossenem Bunker					21-27 Feb	X															
	28-5 Mrz	>PSA-Tests / Systemtests					28-5 Mrz	X															
10	6-12 Mrz	Lumpentest					6-12 Mrz	X															
	13-19 Mrz	X > Produktion					13-19 Mrz	(X)															
	20-26 Mrz	BD >					20-26 Mrz	X															
	27-2 Apr	X >					27-2 Apr	X															
	3-9 Apr	BD >					3-9 Apr	X															
	10-16 Apr	X >					10-16 Apr	X															
15	17-23 Apr	BD >					17-23 Apr	X															
	24-30 Apr	X >					24-30 Apr	X															
	1-7 Mai	BD >					1-7 Mai	BD															
	8-14 Mai	X					8-14 Mai	X															
	15-21 Mai	BD >					15-21 Mai	X															
	22-28 Mai	X >					22-28 Mai	X															
	29-4 Jun	BD >					29-4 Jun	X															
	5-11 Jun	X					5-11 Jun	X															
	12-18 Jun	BD >					12-18 Jun	X															
	19-25 Jun	X >					19-25 Jun	X															
	26-2 Jul	BD >					26-2 Jul	X															
	3-9 Jul	X >					3-9 Jul	X															
	10-16 Jul	BD >					10-16 Jul	X															
	17-23 Jul	X >					17-23 Jul	X															
	24-30 Jul	BD >					24-30 Jul	X															
	31-6 Aug	X >					31-6 Aug	X															
	7-13 Aug	BD >					7-13 Aug																
	14-20 Aug	X >					14-20 Aug																
	21-27 Aug	BD >					21-27 Aug																
	28-3 Sep	BD >					28-3 Sep																
	4-10 Sep	BD >					4-10 Sep																
	11-17 Sep	X >					11-17 Sep																
	18-24 Sep	BD >					18-24 Sep																
	25-1 Okt	X >					25-1 Okt																
	2-8 Okt	BD >					2-8 Okt																
	9-15 Okt	X >					9-15 Okt																
	16-22 Okt	BD >					16-22 Okt																
	23-29 Okt	X >					23-29 Okt																
	30-5 Nov	BD					30-5 Nov																
	6-12 Nov	X >					6-12 Nov																
	13-19 Nov	BD >					13-19 Nov																
	20-26 Nov	X					20-26 Nov																
	27-3 Dez	BD >					27-3 Dez																
	4-10 Dez	X >					4-10 Dez																
	11-17 Dez	BD >					11-17 Dez																
	18-24 Dez	Betrieb bis 22.12 08h					18-24 Dez																
	25-31 Dez						25-31 Dez																

BETRIEBS PROGRAMM Januar-Juli 2000

Inj. 1

def. 13.12.9

BETRIEBS PROGRAMM 2000

Inj. 2 und Ring