



PSI, Villigen
March, 2004

**MINUTES "BESCHLUSSKONFERENZ"
OF THE USERS MEETING BV 35 AT PSI
February 12 - 13, 2004**

present: Prof. R. Eichler (Chairman)
Dr. K. Gabathuler
Dr. D. Herlach
Dr. C. Hoffman
Prof. H.R. Ott
Dr. E. Pedroni
Dr. C. Petitjean (Secretary)
Dr. R. Rosenfelder
Dr. P.A. Schmelzbach

excused: Prof. K. Clausen
Prof. H. Gaggeler
Dr. G. Goitein
Prof. H. Keller
Dr. L. Simons
Dr. A. Wrulich

1. Approval of Experiments

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

New Proposals

- R-04-01.1 Study of the $\pi^+ \rightarrow e^+ \nu \gamma$ decay anomaly
D. Pocanic, E. Frlez, D. Mzavia et al., Virginia, Dubna, PSI, Swierk, Tbilisi, Tempe, Zagreb, Sofia, Zürich
Approved, 15 weeks in area π E1.
- RA-04-01 Magnetism and superconductivity in the Na_xCoO_2 layered cobalt oxide family
P. Mendels, H. Alloul et al.; Paris Sud, Saclay, Kazan
Approved, 4 days GPS and 4 days LTF (shared)
- RA-04-02 Relation between magnetism and superconductivity in the layered compounds Na_xCoO_2 and $\text{Na}_x\text{CoO}_2 \cdot 1.3\text{H}_2\text{O}$
J. Chakhalian, C. Bernhard, C. Niedermayer et al.; MPI-FKF Stuttgart, PSI, ETH Zürich, Warsaw
Approved, 8 days GPS and 8 days LTF (shared)
- RA-04-03 μ SR investigations of the magnetic and superconducting phase boundaries in $\text{TlBa}_2\text{Y}_{1-x}\text{Ca}_x\text{Cu}_2\text{O}_8$
I. Watanabe et al.; RIKEN, ISIS, Akita
Conditional approval (report for RA-02-15 required), 7 days DOLLY
- RA-04-04 μ SR study of the impurity effect on the magnetic ground state in the electron-doped high- T_c superconductor $\text{Pr}_{1-x}\text{LaCe}_x\text{Cu}_{1-y}(\text{Zn,Ni})_y\text{O}_4$
Y. Koike et al.; Tohoku, Sendai, RIKEN, ISIS
Approved, 7 days DOLLY
- RA-04-05 Spin dynamics in the XY pyrochlore antiferromagnet: effect of exchange disorder and magnetic dilution in $\text{Er}_2\text{Ti}_2\text{O}_7$
J. Lago, S. Blundell et al.; UC London, Oxford, ISIS, RIGB London
Approved, 6 days GPS and 6 days LTF (shared)
- RA-04-06 Pressure induced magnetic order in the spin liquid $\text{Tb}_2\text{Ti}_2\text{O}_7$, as studied by μ SR
D. Andreica et al.; Cluj, Saclay, Paris XI, PSI, ETH Zürich
Approved, 1 day LTF, 1 day DOLLY, 5 days GPD
- RA-04-07 Search for the Griffiths phase in disordered ferromagnets – comparison with spin glasses
C. Pappas et al.; HMI Berlin, Leeds, ISIS, Montpellier
Approved, 7 days GPD

- RA-04-08 Magnetism in novel oxyhydrides
S. Blundell et al.; Oxford, ISIS, Liverpool
 Approved, 3 days DOLLY
- RA-04-09 Static and dynamic magnetic correlations in $\text{La}_{0.67}\text{Ca}_{0.33}\text{Mn}_{0.9}\text{Fe}_{0.1}\text{O}_3$
S.M. Yusuf, B. Roessli, A. Amato; BARC Mumbai, PSI
 Approved, 3 days GPS
- RA-04-10 Magnetization jumps and thermal cycling effects in some Ce(Ni,Cu) compounds
N. Marcano Aguado, J.C. Gomez Sal et al.; Cantabria, TU Munich, Virginia State, Uppsala, PSI
 Approved, 3 days GPS and 3 days LTF (shared)
- RA-04-11 μSR investigation of CeCo_4B and $\text{Y}(\text{Fe}_x\text{Al}_{1-x})_3$ intermetallic compounds
R. Tetean Vinteler, D. Andreica et al.; Cluj, ETH Zürich, PSI
 Approved, 5 days DOLLY
- RA-04-12 μSR studies of new intermediate valence systems
K. Prassides et al.; Sussex, Cambridge, ETH Zürich, PSI, Michigan State
 Approved, 4 days GPS and 3 days LTF (shared)
- RA-04-13 Investigation of spin dynamics in strongly correlated electron systems by μSR techniques
P. Dalmas de Réotier et al.; CEA-Grenoble, Delft, Amsterdam, PSI
 Approved, 2 days GPS and 2 days LTF (shared)
- RA-04-14 μSR study of spin dynamics in slow relaxing molecular Ising chains
 CoPhOMe
E. Micotti, A. Lascialfari et al.; Pavia
 Approved, 6 days GPS
- RA-04-15 μSR study of sub-1K magnetic phase transition in $\text{Gd}(\text{hfac})_3\text{NITiPr}$ one-dimensional ferrimagnet
A. Lascialfari et al.; Pavia
 Approved, 4 days LTF
- RA-04-16 Probing polymer dynamics using implanted muons
F. Pratt, S. Blundell et al.; ISIS, Oxford
 Approved, 3 days GPS, 3 days GPD, 3 days ALC
- RA-04-17 Investigation of itinerant magnetic materials by μSR techniques
D. Andreica, A. Yaouanc et al.; Cluj, CEA-Grenoble, Delft, Karlsruhe, PSI
 Approved, 3 days DOLLY, 5 days GPD
- RA-04-18 Protonation of organic radicals in zeolites studied by ALC- μSR
E. Roduner et al.; Stuttgart, TRIUMF
 Approved, 6 days ALC

Letter of Intent

- R-04-02.0 Measurement of the UCN production efficiency of solid D₂ and comparison with the solid cryogenic materials CD₄ and O₂
K. Kirch et al., PSI, Cracow, ETHZ, Zürich, ILL Grenoble, Dubna, Gatchina, Osaka, IMEP Wien
The letter is acknowledged, see comments in the short minutes BVR 35.
2 weeks testbeam in FUNSPIN area is approved

2. Beam schedules

The 600 MeV ring accelerator is scheduled for 34 weeks of high intensity beam production from April 29 to December 22, 2004 (see research schedule in the appendix). The assembly of new solenoid coils in target E station for the μ E4 LEM beam must be completed before the start of meson beams and SINQ, which might cause a delay of up to 1 week.

The exact beam allocation in areas π E3 and π E5 for fall 2004 has been postponed and will be fixed in July 2004, since the readiness of some of the scheduled experiments was not sufficiently clear at the users meeting.

As usual, the beam schedule 2004 will be regularly updated and displayed on the internet <http://ltp.web.psi.ch/schedule.pdf>.

3. Acknowledgement

At this meeting Prof. Dr. Gerhard Wagner from the University of Tübingen finished his term in the BVR research committee. We thank him very much for his engagement and much expertise he has provided since 1997.

4. Varia

The next meeting BV 36 is scheduled for February 9 - 11, 2005. The first day is reserved for reviews of μ e γ and UCN. The **deadline** for beam requests, new proposals and addenda is **December 13, 2004**.

The next meeting BVRA 2005 is foreseen for January 2005 (exact date to be fixed). The **deadline** for beam requests and new proposals will be around mid November 2004.

Attachments

- PSI 590 MeV Program April – December 2004
- BV35 list of PSI HE experiments
- the recommendations of the scientific committees can be found on the internet:
<http://www.psi.ch/ltp/bvr.html>

PSI 590 MeV Program April – December 2004

28-04-2004

PSI 590 MeV Program April 29 - December 22, 2004

Number of week	18	19	20	20	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	
Date of Monday	26-4	3-5	10.5.	17-5	24-5	31-5	7-6	14-6	21-6	28-6	5-7	12-7	19-7	26-7	2-8	9-8	16-8	23-8	30-8	6-9	13-9	20-9	27-9	4-10	11-10	18-10	25-10	1-11	8-11	15-11	22-11	29-11	6-12	13-12	20-12	
590 MeV accelerator, Injector II																																				
Area	Proposal #	Spokesman	KTR	Experiment																																
μM1	Renker	114100	Detector-Tests																																	
	R-99-06	Kirkby/Pohl	114150	Fast μ- lifet.	* set up *																															
	R-99-05	Mori	119100	Tests μey																																
	Robmann	114195	Tests KOPIO																																	
	R-89-01	Gabathuler	116100	LHC Test																																
μM3	RA-Progr.	Herlach (coord)	716100	μSR																																
μE1	R-04-01	Pocanic	114192	* set up *																																
	R-99-05	Mori	119100	μeγ																																
	RA-Progr.	Herlach (coord)	735100	μSR	* set up * MuSR Dolly																															
μE3	RA-progr.	Herlach (coord)	735100	μSR	* set up * MuSR ALC																															
	R-99-07	Hertzog	114140	μ lifetime	Final Allocations open																															
	R-97-05	Kammel/Petitjean	114157	μp Capture	Final Allocations open																															
	Separator				horizontal separator																vertical separator															
μE5	R-98-01	Gotta	114175	π-Hydrogen	Final Allocations open																															
	R-99-05	Mori	119100	μeγ tests	* set up *																															
	Grab	710000	ETH Praktikum	Final Allocations open																																
	Separator				vertical separator																new separator (when available)															
μE1	RA-Progr.	RA-program	735100	μSR	* set up *																															
	R-02-02	Egorov	114100	μCap2β																																
μE4	RA-Progr.	Morenzoni	735200	slow μ+ exp.	Area in Reconstruction																															
					Beamtests and commissioning																															
NA3	Biomed.	Pedroni-Goitein		p-Therapy	Special exp./Dosimetry																															
				Special exp./Dosimetry																																
SINO	R-96-04	Bodek	114130	Time rev viol (n-decay)																																
	R-03-01	Zimmer	731002	Neutron Scattering	* test *																															
	R-04-02	Kirch	117160	UCN Prod. Efficiency	* test *																															

NA Areas For Details see weekly program

BV 35 LIST OF PSI HE EXPERIMENTS: BEAM REQUESTS AND ALLOCATIONS 2004

VA14/list01

AREA	PROPOSAL	SPOKESPERSONS	EXPERIMENT	BEAM STATUS (1 Week = 5 Real Days)			BEAM ALLOCATIONS 2004		
				Used	Status	Ref.	Request	Remarks	Allocation
$\pi M1$	R-99-06 R-99-05 Tests Tests Tests	KIRKBY, POHL MORI GABATHULER ROBMANN RENKER	μ^+ lifetime with FAST $\mu \rightarrow e + \gamma$ chamber tests Irradiations with π for LHC KOPIO Experiment Crystal and other tests	25 W(T)	appr. (see $\pi E5$) appr.	BV30 BV34	6+13 W(T) 2 W(T) 4 + 4 W(T) 2 W(T)	.May/Sept.-Nov.9 June/July Aug./Sept. August	9 W(T)+ 13 W 2 W(T) 4 W(T) 2 W(T)
$\pi M3$	RA-Props.	(HERLACH, Coord.)	μSR , GPS + LTF		(see BVRA)		42 W (GPS + LTF)		34 W
$\pi E1$	RA_Props. R-04-01	(HERLACH, Coord.) POCANIC. FRLEZ, MZAVIA	μSR with DOLLY $\pi^+ \rightarrow e^+ \nu \gamma$	-	(see BVRA)	BV35	12 W 15 W	Oct. - Dec. May-August.	3T + 14 W 1 T + 15 W. -
$\pi E3$	R-97-05 R-99-07 RA-Props.	KAMMEL, PETITJEAN HERTZOG, CAREY (HERLACH, Coord.)	μp singlet capture MULAN Det./Beam Tests μSR (ALC-Expts.)	38 W(T) 14 W(T)	appr. appr. (see BVRA)	BV32 BV29	10 W (Sep) 6 W(Sep) 10+3 W (ALC)	schedule open schedule open May-Jul., Sept.-Oct.	10 W 6 W 1T + 12 W
$\pi E5$	R-98-01 Praktikum R-99-05	GOTTA GRAB et al. MORI	π Hydrogen Praktikum Particle Physics ETH $\mu \rightarrow e + \gamma$ (tests)	21 W 27 W(T)	appr. appr Tests appr.	BV27 BV29	6 W(T) 3 W 15+12 W(T)	schedule open Aug. 25 - Sept. 13 Apr.-Jul., sched. open	6 W 3 W 1T+24W
$\mu E1$	R-02-02 RA-Props.	EGOROV (HERLACH, Coord.)	Part. μ cap for double β decay μSR	4 W	appr. (see BVRA).	BV33	6 W 26 W (GPD)	May - July May-June/Aug.-Dec.	6 W 1T+27W
$\mu E4$	slow μ^+	MORENZONI	slow μ^+ facility (LEM)	68 W	appr.	BV19	12 W(Sep)	test+commissioning	12 W
NA Areas (split-p beam)	R-89-08 NA3	ZEHNDER,HAJDAS PEDRONI, GOITEIN	PIF (Proton Irrad. Facility) p -Therapy (GANTRY), Dosimetry Special exp. and dosimetry		appr. appr.	BV14 FOKO	8 WE 3x17.5 h/week + last 4 Saturdays 5 WE		8 WE OK OK
SINQ "FUNSPIN"	R-96-04 R-03-01 R-04-02	BODEK ZIMMER KIRCH	Time reversal viol. in n-decay n-scattering length of D UCN eff. in solid D	45 W - -	appr. appr.	BV32 BV34 BV35	3 months 20 W 10 days	Aug.-October. 2004/2005	13 W 1 T + 13 W 2 W(T)

28.04.04