



**MINUTES "BESCHLUSSKONFERENZ"
OF THE USERS MEETING BV 36 AT PSI
February 10 - 11, 2005**

present: Prof. R. Eichler (Chairman)
Dr. A. Amato
Prof. K. Clausen
Dr. A. Coray
Dr. C. Hoffman
Dr. C. Petitjean (Secretary)
Dr. P.A. Schmelzbach

excused: Prof. H. Gäggeler
Dr. K. Gabathuler
Dr. G. Goitein
Dr. D. Herlach
Prof. H. Keller
Prof. H.R. Ott
Dr. R. Rosenfelder
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-05-03.1 Measurement of the Neutron Electric Dipole Moment
K. Kirch, O. Naviliat-Cuncic et al., PSI, Caen, Cracow, Dubna, Fribourg, Grenoble
First phase at ILL approved, see short minutes BVR36
- R-04-02.1 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, Grenoble, Vienna, Los Alamos, Dubna
Approved, 5 + 4 weeks at FUNSPIN
- RA-05-01 Magnetic Properties of Layered Co Based Perovskites
H. Luetkens et al., PSI, Braunschweig
Approved, 12 days DOLLY
- RA-05-02 Nature of the Co³⁺ Ground State in LaCoO₃
M. Medarde et al., PSI, MPI-FKF Stuttgart
Approved, 4 days GPS
- RA-05-03 One-Dimensional Cobalt Oxides under High Pressure
J. Sugiyama, D. Andreica et al., Toyota Central R&D Labs, Cluj, PSI, Nagoya
Approved, 4 days DOLLY + 14 days GPD
- RA-05-04 Pressure-Induced Magnetic Transition in PrCu₂
D. Andreica et al., Cluj, ETHZ, Osaka
Approved, 2 days DOLLY + 8 days GPD
- RA-05-05 Study of Magnetism in the Ce(Mn_{1-x}Fe_x)₂Ge₂ System
V. Sikolenko, E. Pomjakushina, K. Conder et al., HMI Berlin, PSI
Approved, 8 days GPD
- RA-05-06 Magnetic Order Investigation in NdMnO₃
T. Elzhov et al., JINR Dubna, PSI
Approved, 4 days DOLLY
- RA-05-07 Magnetoresistive Frustrated Spinels
A. Lappas et al., FORTH-IESL Heraklion, RI London, UCL London
Approved, 2 days GPS

- RA-05-08 Manganese Framework Magnetism
A. Lappas et al., FORTH-IESL Heraklion, RI London, UCL London
Approved, 2 days GPS
- RA-05-09 A μ SR Magnetic Study of the Spin and Orbitally Frustrated Thio-Spinels
 MnSc_2S_4 and FeSc_2S_4
G.M. Kalvius, O. Hartmann et al., TU München, Uppsala, Virginia State, Augsburg
Approved, 2 days GPS + 2 days LTF shared
- RA-05-10 Sub-1 K Phase Transition in $\text{Gd}(\text{hfac})_3\text{NIT-R}$ Magnetic Chains
A. Lascialfari et al., Pavia
Approved, 3 days GPS + 3 days LTF shared
- RA-05-11 Spin Dynamics of in Heterometallic Molecular Rings
A. Lascialfari, J. Lago et al., Pavia
Approved, 5 days GPS
- RA-05-12 Low Temperature Spin Dynamics in Spin Ice Pyrochlores $\text{Ho}_2\text{Ti}_2\text{O}_7$ and $\text{Dy}_2\text{Ti}_2\text{O}_7$ X
J. Lago, S. Blundell et al., Pavia, Oxford, UCL London
Approved, 2 days GPS + 2 days LTF shared
- RA-05-13 Magnetism in Correlated Inorganic Systems
S. Blundell, F. Pratt et al., Oxford, ISIS
Approved, 6 days GPS
- RA-05-14 Superconducting Properties of Non-Centrosymmetric CePt_3Si
A. Amato et al., PSI, TU Wien
Approved, 2 days GPS + 2 days LTF shared
- RA-05-15 Superconductivity in the Molecular Metal Cluster Compound Ga_8
D. Bono, L.J. de Jongh et al., Leiden, DFG-CFN Karlsruhe, RAL, PSI
Approved, 3 days GPS
- RA-05-16 Counterion Binding Dynamics in Lamellar Phase Dispersions
I. Tucker, R. Scheuermann et al., Unilever Research, PSI
Approved, 6 days ALC
- RA-05-17 Phenylalcohol Partitioning in a Quarternary Sodium Dodecyl Sulfate-Pentanol-Dodecane System
E. Roduner et al., IPC Stuttgart, PSI, Unilever Research
Approved, 10 days ALC
- RA-05-18 Muonium as a Probe of Solvent Effects in Nanoconfined Fluids
I. McKenzie et al., IPC Stuttgart, PSI
Approved, 6 days GPD

- RA-05-19 Assessment of the Incorporation of Steroidal Drug Molecules into Liposomes
U.A. Jayasooriya et al., East Anglia
Approved, 6 days ALC
- RA-05-20 Muonium States in II-VI and Related Wide Bandgap Semiconductors
N. Ayres de Campos, A. Weidinger, S.F.J. Cox, J. Campos Gil et al., Coimbra, HMI Berlin, ISIS, Texas Tech
Approved, 4 days GPS + 4 days LTF shared
- RA-05-21 Negative Muon Spin Rotation Study of Acceptor Centers in SiC
A. Stoykov et al., PSI, JINR Dubna
Approved, 21 days GPD
- RA-05-22 Effect of Uniaxial Stress on the Behaviour of Shallow Acceptor Impurities in Diamond-Like Semiconductors
T. Mamedov et al., JINR Dubna, MIPT Moscow, PSI
Approved, 29 days GPD
- RA-05-23 Hydrogen-Induced Shallowing of N Levels in Diamond
I.Z. Machi, S. Connell et al., South Africa, Schonland, Durban, ISIS
Not approved
- RA-05-24 Hydrogen Complexation with Boron in Diamond: a Possible n-type Shallow Dopant System
I.Z. Machi, D. Gxawu et al., South Africa, Schonland, Durban
Withdrawn by authors
- RA-05-25 Magnetic Moment of the Negative Muon in the Bound State in Various Atoms
T. Mamedov et al., JINR Dubna, PSI
Approved, 15 days GPD
- RA-05-26 Unified Phase Diagram for the CLBLCO System
A. Keren, R. Assa et al., Technion Haifa
Approved, 3 days GPS

New Letters of Intent

- R-05-01.0 Precise Measurement of the $\pi^+ \rightarrow e^+ \nu$ Branching ratio
D. Pocanic et al., Virginia, PSI, Dubna, Swierk, Tbilisi, Tempe, Zagreb, Zürich
Tests approved, 4 weeks in area $\pi E1$. A full proposal is invited, see short minutes BVR 36
- R-05-02.0 Measurement of Cold Neutron Depolarization in Liquid and Solid Deuterium
M. Snow et al., Bloomington Indiana, Greencastle Indiana, Los Alamos, Durham NH, PSI, Cracow
Approved as "miniproposal", 1 week at FUNSPIN. For continuation a separate proposal is necessary, see short minutes BVR36

2. Beam schedules

The 600 MeV ring accelerator is scheduled for 38 weeks of high intensity beam production from March 31 to December 23, 2005 (see research schedule in the appendix). The first 2 weeks in April 2005 may employ reduced intensity.

As usual, the beam schedule 2005 will be regularly updated and is displayed on the internet:

- http://tp.web.psi.ch/accelerator_and_beams/schedule.pdf for the general schedule
- http://lmu.web.psi.ch/facilities/schedules/musr-schedule_2005.html for μ SR details

3. Varia

The next meeting BV 37 is scheduled for February 15 - 17, 2006. The first day is reserved for reviews of $\mu e \gamma$ and UCN. The **deadline** for beam requests, new proposals and addenda is **January 9, 2006** (title pages and requests) **and January 16, 2006** (electronic submission of full documents).

The next meeting BVRA-2006 is foreseen for January 25 -27, 2006. The **deadline** for beam requests and new proposals is **December 10, 2005**.

Attachments

- PSI 590 MeV Program March 31 – December 21, 2005
- BV36 list of PSI HE experiments
- BVRA-2005 list of PSI μ SR Experiments
- the short minutes with recommendations of the scientific committees can be found on the internet: http://ltp.web.psi.ch/user_information/user_meeting.htm

PSI 590 MeV Program March – December 2005

Number of week		13	14	15	16	17	18	19	20	21	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	
Date of Thursday		31.3	7.4	14.4	21.4	28.4	5.5	12.5	19.5	26.5	2.6	9.6	16.6	23.6	30.6	7.7	14.7	21.7	28.7	4.8	11.8	18.8	25.8	1.9	8.9	15.9	22.9	29.9	6.10	13.10	20.10	27.10	3.11	10.11	17.11	24.11	1.12	8.12	15.12	
Date of Wednesday		6.4	13.4	20.4	27.4	4.5	11.5	18.5	25.5	1.6	8.6	15.6	22.6	29.6	6.7	13.7	20.7	27.7	3.8	10.8	17.8	24.8	31.8	7.9	14.9	21.9	28.9	5.10	12.10	19.10	26.10	2.11	9.11	16.11	23.11	30.11	7.12	14.12	21.12	
Area		Proposal	Spokesman	KTR	Experiment																																			
μM1	R-99-06	Renker	114100	Detector-Tests																																				
		Kirkby/Pohl	114150	Fast μ- lifet.																																				
		Grab	710000	ETH Praktikum																																				
μM3	RA-Progr.	Herlach (coord)	716100	μSR																																				
μE1	R-04-01	Pocanic	114192	π → eν																																				
	Irradiation	Gabathuler	116100	CMS pixel modules																																				
	Irradiation	Nessi		PbW crystals																																				
	RA-Progr.	Herlach (coord)	735100	μSR																																				
μE3	RA-progr.	Herlach (coord)	735100	μSR																																				
	R-99-07	Hertzog/Carey	114140	μ lifetime																																				
	R-97-05	Kammel/Pettler	114157	μp Capture																																				
	Separator				vertical separator																																			
μE5	R-98-01	Gotta	114175	μ Hydrogen																																				
	R-99-05	Mori	119100	μeγ tests																																				
	Separator																																							
μE1	RA-Progr.	RA-program	735100	μSR																																				
μE4	RA-Progr.	Morenzoni	735200	slow μ+ exp.																																				
	R-02-02	Egorov	114100	μCap for Zp																																				
NA3	Biomed.	Pedroni-Gostein		μ-Therapy																																				
SINO	R-96-04	Bodek	114130	Time rev viot (n-decay)																																				
	R-03-01	Zimmer	731002	Neutron Scattering																																				
	R-04-02	Kirch	117160	UCN in solid D																																				
	R-05-02	Snow		n depolarization																																				

NA Areas For Details see weekly program

BV 36 LIST OF PSI HE EXPERIMENTS: BEAM REQUESTS AND ALLOCATIONS 2005

VA14/list01

AREA	PROPOSAL	SPOKESPERSONS	EXPERIMENT	BEAM STATUS (1 Week = 5 Real Days)			BEAM ALLOCATIONS 2005		
				Used	Allocation	Ref.	Request	Remarks	Allocation
π M1	R-99-06 Tests Praktikum	KIRKBY, POHL RENKER GRAB et al.	μ^+ lifetime with FAST Tests Praktikum Particle Physics ETH	40 W(T)	appr.	BV30	8 W(T) + 25 W		8 W(T) + 25 W
					appr.		2 W	Sept. 9-21	2 W
π M3	RA-Props.	(HERLACH, Coord.)	μ SR, GPS + LTF			(see BVRA)	52 W (GPS + LTF)		1 W(T) + 37 W
π E1	RA-Props. R-05-01 Irradiations Irradiations	(HERLACH, Coord.) POCANIC GABATHULER NESSI	μ SR with DOLLY $\pi^+ \rightarrow e^+ \nu(\gamma)$ CMS pixel modules PbW crystals			(see BVRA) BV36	16 W + 1 W(T) 4 W(T)		1 W(T) + 14 W 4 W(T)
							8 W	May-June/Dec early if possible	2W(T) + 8 W 1W(T) + 1 W
π E3	R-97-05 R-99-07 RA-Props.	IKAMMEL, PETITJEAN HERTZOG, CAREY (HERLACH, Coord.)	μ p singlet capture MULAN μ SR (ALC.)	50 W(T) 20 W(T)	appr. appr.	BV32 BV29 (see BVRA)	8 W (Sep) 10 W (Sep) 15 W + 4 W(T)	Nov.-Dec. June/Sept.-Oct.	8 W 10 W 4 W(T) + 15 W
π E5	R-98-01 R-99-05	GOTTA MORI	π Hydrogen $\mu \rightarrow e + \gamma$	28 W 42 W(T)	appr. appr.	BV27 BV29	9 W 26 W(T)	Aug.-Oct. April-Dec.	9 W 28 W(T)
μ E1	RA-Props.	(HERLACH, Coord.)	μ SR (GPD)			(see BVRA).	37 W		2 W(T) + 37 W
μ E4	slow μ^+ R-02-02	MORENZONI EGOROV	slow μ^+ facility (LEM) Part. μ cap for double β decay	80 W 10 W	appr. appr.	BV19 BV33	16 W comm.. + 17 W (Sep) 4 W		16 W(T) + 18 W 4 W (preliminary)
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	3x17.5 h/week + last 4 Saturdays		34 W Mo, Tue, Thurs evenings
SINQ "FUNSPIN"	R-96-04 R-03-01 R-04-02 R-05-02	BODEK ZIMMER KIRCH SNOW	Time reversal viol. in n-decay n-scattering length of D UCN eff. in solid D Cold n depol. in liq.&sol. D ₂	58 W 10 W	appr. appr.	BV32 BV34 BV35 BV36	4 W 11 W 5 W 1 W(T)	Aug.-Sept. Jun-Jul/Nov-Dec Sept.-Oct. Nov.	4 W 1W(T) + 10 W 5 W 1 W

BVRA-2005 List of μ SR Experiments			Requests (days)				Allocations (days)					
RA-number	Contact- / Spokesperson(s)	Short Title	GPSL	T	Dolly	GPDA	ALC	GPSL	T	Dolly	GPDA	ALC
			π M3	π E1	μ E1	π E3	π M3	π E1	μ E1	π E3		
98-06	Schenck	Quadrupolar ordering		6					4			
00-02	Niedermayer-Bernhard	Spin & charge dynamics in HTC	10	4				6	4			
00-12	Sikolenko et al.	LaSrCoO ₃				5					5	
00-21	Scheuermann-Roduner	Radical reorientation	1				8	1				6
01-02	Forgan	Probing moving vortices	11					8				
01-15	Yaouanc-Hodges	Spin fluctuations in oxides	4	15				4	7			
01-16	Mendels-Bert	Geometrically frustrated AFM	5	9				5	6			
01-20	De Renzi et al.	Manganese spinels	5	1				3	1			
01-22	Klauss-Scheuermann	Magnetic molecular materials	8					5				
02-03	Keren-Assa	Frustration driven lattice distortion		4					2			
02-07	Klauss	Spin tetrahedra systems				10					10	
02-09	Gubbens	Cr magnetic ordering in RCrO ₄	3									
02-10	Gubbens	Local field in correlated systems	3					1				
02-12	Stockert	Magn. & SC in CeCu ₂ (Si _{1-x} Ge _x) ₂		5					3			
02-14	Shengelaya	Magn. phenomena & isotope effect	14			20		9			20	
02-15	Watanabe	La _{1.8} Nd _{0.2} Cu _{1-y} Zn _y O _{4+d}	2		5			1		5		
02-18	De Renzi et al.	Novel supercond. MgB ₂	7	6				5	5			
02-20	Gil-Weidinger-Duarte	Organic semiconductors	1		3			1		3		
03-02	Kalvius-Hartmann	Short vs long range order	5							5		
03-09	Blundell-Pratt-Lancaster	Molecular magnetism	8	6				5	5			
03-11	Pratt-Blundell	Molecular metals	6	6				4	4			
03-12	Lee-Mesot-Pratt	Novel superconductors	10					7				
03-13	Eshchenko	EF μ SR in semicond. & insulators	4			2	14	2			2	10
03-14	Egorov-Baines	Muon dynamics in In & Sn	4	2				3	2			
03-15	Morenzoni	Ferroelectrics	7					4				
04-01	Mendels-Bobroff-Alloul	Na _x CoO ₂ layered oxide	9	3				6	3			
04-02	Bernhard et al.	Magnetism in Na _x CoO ₂	10					7				
04-03	Watanabe	TiBa ₂ Y _{1-x} Ca _x Cu ₂ O _{delta}	5		2			3		2		
04-06	Andreica	Tb ₂ Ti ₂ O ₇ spin liquid under pressure		1	1	5			1	1	5	
04-07	Pappas	Griffiths phase in disorderd FM	5			5				5	5	
04-08	Blundell-Pratt	Magnetism in novel oxyhydrides	3							3		
04-14	Micotti-Lascialfari	MuSR study of CoPhOMe chain	6					3				
04-16	Pratt-Blundell	Polymer dynamics	6				6	4				6
04-17	Andreica-Yaouanc	Study of itinerant systems	2			8		1			8	
04-18	McKenzie	Protonation of organic radicals					6					6
05-01	Luetkens	Layered Co-based perovskites	12							12		
05-02	Medarde	Co ³⁺ ground state of LaCoO ₃	6					4				
05-03	Sugiyama-Andreica	High pressure on 1-dim. Co oxides			4	14				4	14	
05-04	Andreica	Presssure effects in PrCu ₂			2	8				2	8	
05-05	Sikolenko et al.	Magnetism in Ce(MnFe) ₂ Ge ₂				8					8	
05-06	Elzhov	NdMnO ₃ doped with Sr and Ru			4					4		
05-07	Lappas	Magnetoresistive frustrated spinels	4					2				
05-08	Lappas	Manganese Framework Magnetism	4					2				
05-09	Kalvius-Hartmann	Frustrated thio-spinels	4	3				2	2			
05-10	Lascialfari	Phase trans. in Gd-R magn. chains	6	6				3	3			
05-11	Lascialfari-Lago	Heterometallic rings	8					5				
05-12	Lago-Blundell	Low-T spin dynamics of spin ice	3	3				2	2			
05-13	Blundell-Pratt	Magnetism in correl. inorg. systems	9					6				
05-14	Amato	CePt ₃ Si superconductor	3	3				2	2			
05-15	Bono-De Jongh	Superconductivity in Ga84	4					3				

Continued on next page

BVRA-2005 List of Experiments, continued			Requests (days)				Allocations (days)					
RA-number	Contact- / Spokesperson(s)	Short Title	GPSLTF	Dolly	GPD	ALC	GPSLTF	Dolly	GPD	ALC		
			π M3	π E1	μ E1	π E3	π M3	π E1	μ E1	π E3		
05-16	Tucker-Scheuermann	Counterion binding dynamics				6				6		
05-17	Roduner	Partitioning of cosurfactants				10				10		
05-18	McKenzie	Nanoconfined fluids			6				6			
05-19	Jayasooriya	Drug delivery				7				6		
05-20	Ayres de Campos et al.	Mu in widegap semiconductors	6	4			4	4				
05-21	Stoykov	Acceptor centers in SiC			21				21			
05-22	Mamedov	Acceptors in strained crystals			29				29			
05-23	Macchi-Connell	H-induced shallowing of N levels in C	7									
05-25	Mamedov	Magnetic moment of μ^-		15					15			
05-26	Keren-Assa	Phase diagram for the CLBLCO syst.	4				3					
Total Requests / Allocations (days):			244	87	36	141	57	136	60	46	156	50