

PSI, Villigen
June 12, 2019

**MINUTES "BESCHLUSSKONFERENZ"
OF THE USERS MEETING BV 50 AT PSI
January 28 - 30, 2019**

present: Prof. Dr. C. Rüegg (Chair)
Prof. Dr. K. Kirch
Dr. A. Amato
Dr. M. Seidel
Dr. S. Ritt (Secretary)

excused: Prof. C. Bernhard
Prof. B. Filippone
Prof. Dr. M. Stampanoni

1. Approval of Experiments

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

New Proposals

Two new proposals in particle physics have been presented:

R-19-01.1 Muonium laser spectroscopy (Mu-Mass), P. Crivelli et al.

R-08-01.2 Search for muon catalyzed $d^3\text{He}$ fusion, P. Kravchenko et al.

The BVR research committee recommended test beam for R-19-01.1 and requests more information for R-08-01.2 before allocating any beam time.

2. Beam schedules

The 590 MeV ring accelerator is scheduled for 32 weeks of high intensity beam production from July 1 to December 22, 2019. A schedule has been worked out which satisfies all beam requests.

As usual, the beam schedules 2019 will be regularly updated and are displayed on the internet:

- <https://www.psi.ch/de/sbl/schedules> for the general schedule
- <http://www.psi.ch/lmu/beamtime-schedule> for μ SR details

3. Varia

The next meeting BVR 51 is scheduled for January 27-29, 2020. The first day is reserved for detailed reviews as usual. The deadline for beam requests, new proposals and addenda is January 13, 2020. Users are requested to make electronic submissions of their documents.

The dates for the next meeting BVRA-2020 are not fixed yet.

Attachments

- PSI 590 MeV HE Program 2019 can also be found on <https://www.psi.ch/de/sbl>
- BV50 list of PSI HE experiments
- BVRA-2019 list of PSI μ SR experiments
- the short minutes with recommendations of the scientific committee for particle physics experiments can be found at <https://www.psi.ch/de/sbl/previous-user-meetings>

PSI 509 MeV Program 2020

PSI 590 MeV Program 2019

Last update: 21-Feb-2019

<https://www.psi.ch/sbl/schedules>

			May				June				July				August				September				October				November				December																							
Week number			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	51	52																		
Stefan Ritt <stefan.ritt@psi.ch>			Availability																																																			
PiM3	MuSR (GPS<F)	Amato (coord.)																																																				
PiE3	MuSR high field	Scheuermann (coord.)																																																				
MuE1	MuSR (GPD)	Amato (coord.)																																																				
MuE4	MuSR (LEM)	Prokscha (coord.)																																																				
PiE1-1	MuSR (Dolly)	Amato (coord.)																																																				
PiE1-2	R-16-01.1 muX	Knecht																																																				
	R-08-01.2 Musun	Kravchenko																																																				
	R-14-02.1 MuCOOL	Antognini																																																				
	R-16-02.1 HyperMu	Antognini																																																				
	2S1S	Wauters																																																				
	TargetE	Knecht																																																				
	MuEDM	Schmidt-Wellenburg																																																				
PiE5	R-99-05.2 MEG	Mori																																																				
	R-12-03.1 Mu3E	Schoening																																																				
	R-16-02.1 HyperMu	Antognini																																																				
	TargetE	Knecht																																																				
UCN	R-05-03.1 nEDM	Kirch																																																				
	UCN Spectrometer Tests	Rozpedzik																																																				
PiM1	R-12-03.1 Mu3E	Schoening																																																				
	R-12-01.2 MUSE	Gilman																																																				
	Praktikum	Grab																																																				
	Praktikum	Steinkamp																																																				
	CMS Diamond Detectors	Hits																																																				
	Mice	Desorgher																																																				
	HVCMOS	Kotlinski																																																				
	RADEM (PIF)	Hajdas																																																				
	TIMESPOT	Cardini																																																				
	UNIGE Pixel	Paolozzi																																																				
	TOTEM	Garcia																																																				
	MPGD	Polilener																																																				
	Start (Monday)			6/5/17	13/5/17	20/5/17	27/5/17	3/6/17	10/6/17	17/6/17	24/6/17	1/7/17	8/7/17	15/7/17	22/7/17	29/7/17	5/8/17	12/8/17	19/8/17	26/8/17	2/9/17	9/9/17	16/9/17	23/9/17	30/9/17	7/10/17	14/10/17	21/10/17	28/10/17	4/11/17	11/11/17	18/11/17	25/11/17	2/12/17	9/12/17	16/12/17	23/12/17																	
	End (Sunday)			12/5/17	19/5/17	26/5/17	2/6/17	9/6/17	16/6/17	23/6/17	30/6/17	7/7/17	14/7/17	21/7/17	28/7/17	4/8/17	11/8/17	18/8/17	25/8/17	1/9/17	8/9/17	15/9/17	22/9/17	29/9/17	6/10/17	13/10/17	20/10/17	27/10/17	3/11/17	10/11/17	17/11/17	24/11/17	1/12/17	8/12/17	15/12/17	22/12/17	29/12/17																	

BV50 LIST OF PSI π / μ EXPERIMENTS: BEAM REQUESTS AND ALLOCATIONS 2020

1. New Proposals

Proposal No.	Spokesperson	Email	Experiment	Beam request	Area	Status
R-19-01.1	P. Crivelli	Paolo.Crivelli@cern.ch	MuMass	1 week	LEM	approved
R-08-01.2	P. Kravchenko	kravchenko_pv@pnpi.nrcki.ru	Search for muon catalyzed d-3He fusion	4 weeks	piE1	rejected

2. Progress Reports and Beam Requests

Proposal No.	Spokesperson	Email	Experiment	Beam request	Area	Status
R-99-05.2	T. Mori A. Baldini	mori@icepp.s.u-tokyo.ac.jp baldini@pi.infn.it	Search for $\mu^+ \rightarrow e + \gamma$ (MEG II collaboration)	25 weeks	piE5	approved 20 weeks
R-05-03.1	P. Schmidt-Wellenburg Guillaume Pignol	philipp.schmidt-wellenburg@psi.ch pignol@lpsc.in2p3.fr	Measurement of the Neutron Electric Dipole Moment nEDM	all available UCN beam time	UCN	approved
R-12-01.2	R. Gilman	rgilman@physics.rutgers.edu	Studying the Proton "Radius" Puzzle with μp -ep Elastic Scattering (MUSE collaboration)	25 weeks	piM1	approved 14 weeks
R-12-03.1	A. Schoening St. Ritt	andre.schoening@desy.de stefan.ritt@psi.ch	Search for the Decay $\mu \rightarrow e e e$ (Mu3e collaboration) Detector tests	2 weeks	piM1	approved
R-14-02.1	A. Antognini	aldo@phys.ethz.ch	MuCool	3.5 weeks	piE1	approved 2.5 weeks
R-16-01.1	A. Knecht	a.knecht@psi.ch	Measurement radium charge radius (muX)	5.5 weeks	piE1	approved 5 weeks
R-16-01.1-Add	D. Zinatulina	zinatulina@jinr.ru	muX apparatus to study neutrino response including DBD info	2 weeks	piE1	included in above
-	F. Wauters	fwauters@uni-mainz.de	2s-1s Tests on muX beamline setup	1 week	piE1	approved

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R-16-02.1	A. Antognini	aldo@phys.ethz.ch	Hyperfine Splitting in Muonic H and He (HyperMu)	2 weeks 2 weeks	piE5 piE1	approved 1.5 weeks approved 2 weeks
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2. Test Beam Requests

	Spokesperson	Email	Experiment	Beam request	Area	Status
	D. Hits	dmitry.hits@phys.ethz.ch	CMS Diamond Detectors	3 weeks	piM1	approved 1 week
	B. Kotlinski	danek.kotlinski@psi.ch	HVCMOS - MAPS - Sensors	1 week	piM1	approved 1 week
	L. Desorgher	laurent.desorgher@chuv.ch	Mice irradiation	2 weeks	piM1	approved 1 week
	M. Poli Lener	marco.polilener@Inf.infn.it	MPGD Sensors	2 weeks	piM1	approved 1 week
	P. Schmidt-Wellenburg	philipp.schmidt-wellenburg@psi.ch	MuEDM Tests	1 week	piE1	approved 1 week
	W. Hajdas	wojtek.hajdas@psi.ch	RADEM (PIF)	2 weeks	piM1	approved 1 week
	A. Knecht	a.knecht@psi.ch	Slanted Target E Tests	2+2 days 2+2 days	piE1 piE5	approved approved
	A. Cardini	alessandro.cardini@ca.infn.it	TIMESPOT Detectors	1 week	piM1	approved 1 week
	F. Garcia	francisco.garcia@helsinki.fi	TOTEM Detectors	4 weeks	pi/mu	not approved
	L. Paolozzi	lorenzo.paolozzi@unige.ch	Pixel Tests	3 weeks	piE1	approved 1 week
	D. Rozpedzik	-	UCN velocity spectrometer	2 weeks	UCN	approved

BV50 LIST OF PSI π / μ EXPERIMENTS: BEAM REQUESTS AND ALLOCATIONS 2020**3. Praktika**

	Spokesperson	Email	Experiment	Beam request	Area	Status
	C. Grab	grab@phys.ethz.ch -	ETHZ-Uni Heidelberg-Uni Mainz	3 weeks	piM1 or piE1 or piE5	approved 2 weeks
	O. Steinkamp	olafs@physik.uzh.ch	Uni Zurich	2 weeks	piM1	approved 2 weeks in PiE5

BVRA-2076 list of Continued μ SR experiments

- 20161748 High-pressure μ SR study of superconductivity and Eu²⁺-antiferromagnetism in Ca-substituted EuFe₂As₂
Lan M Tran, Inst. of Low Temperature and Structure Research of the Polish Academy of Sciences
Refused, 0 days GPD
- 20161753 The relations between doping, structure, and the super-exchange interaction; magnetic measurements on the Lanthanide series LnBa₂Cu₃O_y
Amit Keren, The Israel Inst. of Technology - Technion
Approved, 3 days GPS
- 20161762 Magnetic phases in the double perovskites La_{2-x}Ca_xCoIrO₆ (x=0.2,0.8) and La_{1.5}A_{0.5}CoMnO₆ (A=Ca,Sr,Ba)
Jochen Litterst, Techn. Univ. Braunschweig
Approved, 3 days GPS
- 20161765 Cycloidal, short range ordered cycloidal, and ferromagnetic phases in the lacunar spinels GaV₄S₈, GaV₄Se₈, and GaMo₄S₈
Jochen Litterst, Techn. Univ. Braunschweig
Refused, 0 days GPS
- 20161776 Proximity-Induced Antiferromagnetic Correlations in SmTiO₃/SrTiO₃/SmTiO₃ quantum well structures
Michael J Graf, Boston College
Approved, 4 days LEM
- 20161798 Probing of the low-temperature Nd ordering in the hole-doped pyrochlore iridates (Nd_{1-x}Ca_x)₂Ir₂O₇ by means of μ SR study
Retno Asih, RIKEN
Approved, 3 days Dolly
- 20161927 Probing of the low-temperature Nd ordering in the hole-doped pyrochlore iridates (Nd_{1-x}Ca_x)₂Ir₂O₇ by means of μ SR study
Retno Asih, RIKEN
Refused, 0 days GPS
- 20161802 Two-dimensional triangular lattice in cluster magnets, Li₂ScMo₃O₈ & Li₂InMo₃O₈, PART II
Jun Sugiyama, Toyota Central R&D Labs., Inc.
Approved, 8 days HAL-9500
- 20161934 Two-dimensional triangular lattice in cluster magnets, Li₂ScMo₃O₈ & Li₂InMo₃O₈, PART II
Jun Sugiyama, Toyota Central R&D Labs., Inc.
Approved, 1 days GPS
- 20161808 Antiferromagnetic ordering in multi-orbital molecular systems [Au(tmdt)₂] and [Cu(tmdt)₂]
Rina Takagi, RIKEN
Approved, 3 days Dolly
- 20161809 Antiferromagnetic ordering in multi-orbital molecular systems [Au(tmdt)₂] and [Cu(tmdt)₂]
Rina Takagi, RIKEN
Refused, 0 days GPS
- 20161811 Re-investigation of the magnetic phase diagram of Na_xCoO₂ using samples prepared by an electrochemical reaction: PART III
Yasmine Sassa, Univ. Uppsala
Approved, 3 days GPS

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- 20161819 High field μ SR line-shape spectroscopy of the vortex lattice structure in BSCCO single crystals
Ariel Maniv, Nuclear Research Centre-Negev
Refused, 0 days HAL-9500
- 20161835 Measuring the Full Vortex Phase Diagram of a Layered Superconductor
Francis L Pratt, Rutherford Appleton Lab.
Approved, 8 days HAL-9500
- 20161840 Paramagnetic Meissner effect, Vortex Formation and Spin Triplets in Superconducting-Molecular Interfaces
Oscar Cespedes, Univ. of Leeds
Approved, 3 days LEM
- 20161841 Probing the spiral magnetic order in multiferroic YBaCuFeO5 thin films via low-energy μ SR
Toni Shiroka, ETH Zuerich
Approved, 3 days LEM
- 20161842 A Search for the Vector Spin Chiral State in Rb2Cu2Mo3O12.
Nicole M Reynolds, Paul Scherrer Institut
Approved, 3 days LTF
- 20161871 A Search for the Vector Spin Chiral State in Rb2Cu2Mo3O12.
Nicole M Reynolds, Paul Scherrer Institut
Approved, 3 days GPS
- 20161844 Magnetism of the Rare-Earth Nickelates
Lukas Korosec, ETH Zuerich
Approved, 3 days GPS
- 20161848 Anomalous flux expulsion in superconductor/ferromagnet heterostructures
Machiel G Flokstra, Univ. of St. Andrews
Approved, 8 days LEM
- 20161850 Probing the Proximity Effect in Normal Metal Sr2RuO4/Superconductor YBa2Cu3O7 Heterostructures
Angelo Di Bernardo, Univ. of Cambridge
Approved, 5 days LEM
- 20161851 μ SR Study of the Chiral Superconductivity in the Honeycomb-Lattice Superconducting Single Crystals
Tadashi Adachi, Sophia Univ.
Refused, 0 days LTF
- 20161861 Strong interfacial magnetic fields in magnetoelectric/oxide bilayers.
Michael Fechner, Max Planck Inst. für Struktur und Dynamik der Materie
Approved, 6 days LEM
- 20161874 Relation between conductivity and molecular dynamics of surface and interface in polythiophene
Soshi Takeshita, High Energy Acc. Research Org. (KEK)
Refused, 0 days LEM
- 20161875 Investigating the Kasteleyn transition in a dipolar Ising triangular metamaterial
Naemi Leo, Paul Scherrer Institut
Refused, 0 days LEM
- 20161877 Relaxor ferromagnetic state in competition with spin glass behaviour
Stephen J Blundell, Univ. of Oxford
Approved, 3 days GPS

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- 20161883 Imaging the internal field distribution of Dy₂Ti₂O₇
Stephen J Blundell, Univ. of Oxford
Approved, 4 days HAL-9500
- 20161886 The phase diagram and the order parameter symmetry of the time reversal symmetry breaking superconductor Ba_{1-x}K_xFe₂As₂
Dr. Vadim Grinenko, Technische Univ. Dresden
Approved, 5 days GPS
- 20161891 Single crystal study of the layered honeycomb magnet alpha-RuCl₃ under mechanical deformation
Stephen J Blundell, Univ. of Oxford
Approved, 2 days GPS
- 20161898 Structure of a transverse magnetic field near the surface of type-II superconductors.
Vladimir Kozhevnikov, Tulsa Community College
Refused, 0 days LEM
- 20161926 Investigation of charge carrier profiles in GaAs-based quantum well structures by means of low-energy μ SR
Thomas Prokscha, Paul Scherrer Institut
Approved, 5 days LEM
- 20161930 High-pressure μ SR study of an oxygen-free iron-based superconductor
Toni Shiroka, ETH Zuerich
Approved, 7 days GPD
- 20161744 High-pressure μ SR study of an oxygen-free iron-based superconductor
Toni Shiroka, ETH Zuerich
Approved, 1 days GPS
- 20161932 Microscopic investigation of the magnetic field and pressure-induced quantum phase transition in CsFeCl₃
Zurab Shermadini, Paul Scherrer Institut
Approved, 8 days GPD
- 20161936 Microscopic investigation of the magnetic field and pressure-induced quantum phase transition in CsFeCl₃
Zurab Shermadini, Paul Scherrer Institut
Approved, 4 days Dolly
- 20161935 Microscopic investigation of the magnetic field and pressure-induced quantum phase transition in CsFeCl₃
Zurab Shermadini, Paul Scherrer Institut
Approved, 8 days HAL-9500
- 20161933 Magnetic order in high-T_c Cr_xSb_{2-x}Te₃ topological insulator thin films
Peter J Baker, Rutherford Appleton Lab.
Approved, 5 days LEM
- 20161938 The relation between nematicity, quasi-static magnetism and superconductivity in FeSe_{1-x}S_x single crystals
Vadim Grinenko, Technische Univ. Dresden
Approved, 4 days HAL-9500
- 20161949 The relation between nematicity, quasi-static magnetism and superconductivity in FeSe_{1-x}S_x single crystals
Vadim Grinenko, Technische Univ. Dresden
Approved, 3 days Dolly
- 20161951 Spin dynamics of integer-spin antiferromagnetic molecular rings investigated by μ SR
Manuel Mariani, Univ. di Ancona
Approved, 3 days GPS

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