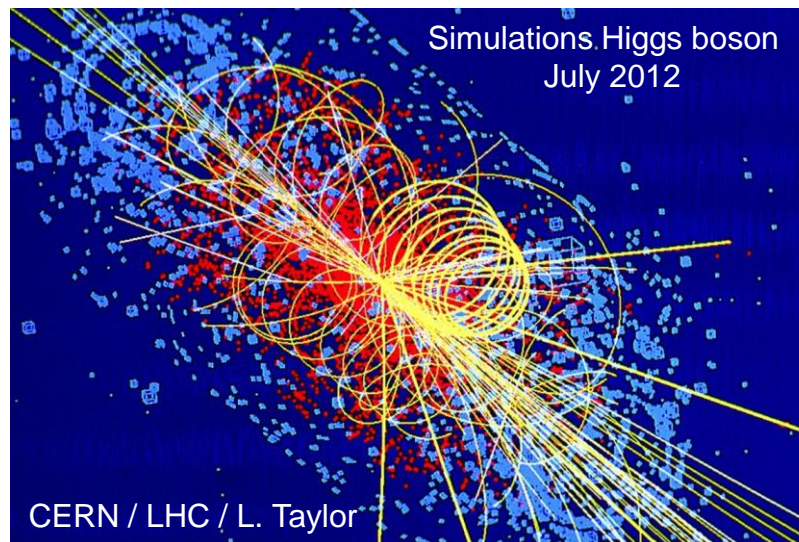




JOINT UNIVERSITIES ACCELERATOR SCHOOL

WELCOME TO JUAS 2013

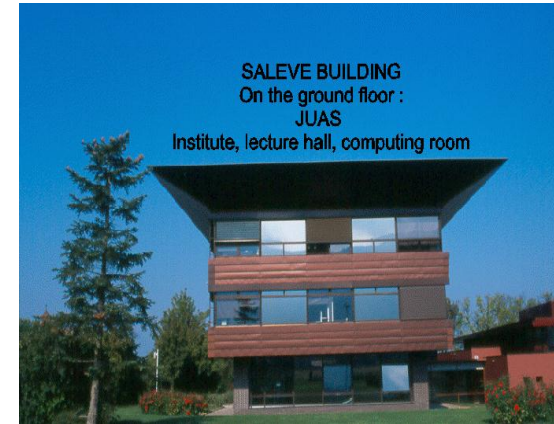
Louis Rinolfi, Director



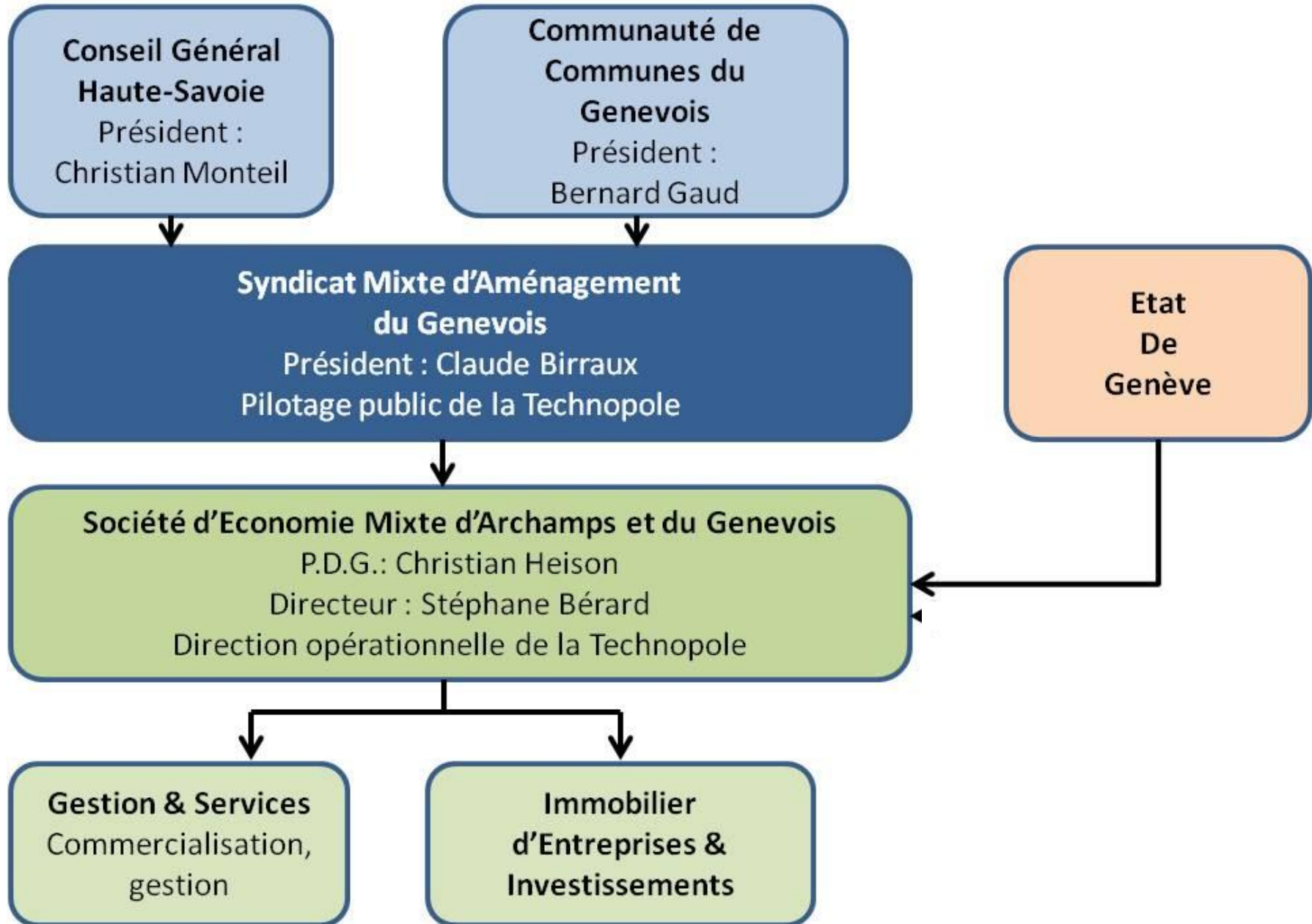


JOINT UNIVERSITIES ACCELERATOR SCHOOL

Residential
Logitop



Archamps “Technopole”



ESI in Archamps Technopôle



ESI President: Hans Falk Hoffmann
Deputy: Manfred Buhler-Broglin

JUAS

2 courses (2 x 5 weeks)

Accelerator Physics

Accelerator Technology

Director: Louis Rinolfi

Accelerator Physicist / CERN

Deputy: Michel Martini

Accelerator Physicist / CERN

ESMP

1 course (6 weeks)

Medical Physics

Accelerator Technology

Director: Yves Lemoigne

Physicist


Deputy: Jacques Balosso

Professor at Grenoble University


***A third school ESIPAP is under preparation for 2014
with Johann Collot (LPSC - Grenoble) as Director***




Hans Hoffmann
ESI President



Manfred Buhler-Broglin
ESI Deputy




Louis Rinolfi
JUAS Director




Marie Gauthier
Administrator



Yves Lemoigne
ESMP Director



Michel Martini
JUAS Deputy



Coline Creton
Assistant



Filiz Demolis
Assistant



JOINT UNIVERSITIES
ACCELERATOR SCHOOL



TWO COURSES ON PARTICLE ACCELERATORS
JUAS 2013
7 January to 15 March



JUAS Poster 2013

Available upon request

Course 1. SCIENCE & PHYSICS (January 7th to February 8th)

Course 2. TECHNOLOGY & APPLICATIONS (February 11th to March 15th)

Intensive programme for graduate students and PhD

Modular Courses for Professionals

Credits available from the 14 European Universities (ECTS)

Organised with the support of 14 major European Universities:

- Universitat Politècnica de Catalunya
- Universitat Autònoma de Barcelona
- Technische Universität Darmstadt
- Universitat Joseph Fourier Grenoble
- Institut National Polytechnique de Grenoble
- Karlsruher Institut für Technologie
- Università degli Studi di Napoli « Federico II »
- Università degli Studi di Roma « La Sapienza »
- Technische Universität Berlin
- Università degli Studi di Genova
- Universitat de València
- Universität Heidelberg
- University of Liverpool
- Université Paris Sud - Orsay

Information : ESI - JUAS
Centre Universitaire de Formation et de Recherche
Bâtiment le Saïève - 135, rue Ada Byron
Archamps Technopôle
F-74166 Saint-Julien-en-Genevois Cedex

Phone: +33 (0)4 50 31 50 10
juas@esi.cur-archamps.fr
www.cern.ch/juas



14 European Universities partners of JUAS in 2013

Universities	Members of Advisory Board	Since
Université Joseph Fourier Grenoble	Jean-Marie De Conto	1994
Technische Universität Darmstadt	Joachim Enders	1994
Karlsruher Institut für Technologie	Anke-Susanne Müller	1994
Universitat Politècnica de Catalunya	Antoni Mendez	1994
Universitat Autònoma de Barcelona	Francisco Calviño	1994
Institut Polytechnique de Grenoble	Elsa Merle-Lucotte	1994
Università degli studi di Napoli "Federico II"	Vittorio Vaccaro	1994
Università degli studi di Roma "La Sapienza"	Luigi Palumbo	1994
Università degli studi di Genova	Marco Bozzo	2002
Technische Universität Berlin	Heino Henke	2002
Universitat de Valencia	Angeles Faus-Golfe	2002
Universität Heidelberg	Andreas Schöning	2007
University of Liverpool	Carsten Welsch	2011
Université Paris-Sud Orsay	Costel Petrache	2012

11 Institutes in the JUAS Advisory Board

Institutes	Members of Advisory Board
ESI President	Hans Hoffmann
ESI administrator	Marie Gauthier
JUAS Director	Louis Rinolfi
CAS Director	Roger Bailey
CERN	Bernhard Holzer
Oxford University	Chris Prior
ESRF	Jean-Luc Revol
PSI	Terry Garvey
GSI	Oliver Boine-Frankenheim
DESY	Winfried Decking
BNL	François Meot

Institutes, Laboratories and Industrial sponsoring JUAS

Main sponsor:



Laboratories (alphabetic order)	
(ALBA)	ESS Bilbao (+ Lund)
Bergoz Instrumentation	GSI
CEA	HIC / FAIR
CERN	HZB
CNRS / IN2P3	INFN
CPAN	KIT
DESY	oPAC
(ESGARD)	PSI
ESRF	SOLEIL

JUAS sponsors



Professors and assistants in 2013 – Course 2

Professors / Assistants	Lecture	Home
F. Caspers / S. Federmann	RF engineering	CERN
P. Chiggiato / R. Kersevan	Vacuum	CERN
S. Russenschuck / C. Giloux	Magnets design	CERN
T. Zickler / J. Bauche	Normal conducting magnets	CERN
M. Wilson	Superconducting magnets	Oxford Instruments
P. Forck	Beam instrumentation	GSI
H. Koivisto	Particle sources	Jyväskylä university
E. Zimoch	Accelerator control	PSI
W. Mondelears	Low energy electron accelerators	Gent university
P. Verbruggen	Accelerators for industrial & medical appl.	IBA
S. Bousson	High current proton linacs	IN2P3/IPNO
R. Miralbell	Therapeutic applications	HUG
G. Beyer	Production of medical isotopes	HUG
P. Berkvens	Radiation and safety	ESRF

Seminars in 2013 – Course 2

Professors	Lecture	Home
A. Degiovani	Hadron therapy	EPFL / TERA
R. Losito	Effects of radiations in particle accelerators	CERN

WEEK 6

	Monday Feb 11th	Tuesday Feb 12th	Wednesday Feb 13th	Thursday Feb 14th	Friday Feb 15th	Saturday Feb 16th	
09:00	Registration and coffee at Juas Office	RF Engineering lecture <i>F. Caspers</i>	Vacuum systems lecture <i>P. Chiggiato</i>	RF Engineering lecture <i>F. Caspers</i>	RF Engineering lecture <i>F. Caspers</i>	From 9 AM to 18 PM Touristic excursion to Lyon (optional)	09:00
10:00		Coffee Break	Coffee Break	Coffee Break	RF Engineering tutorial <i>F. Caspers / S. Federmann</i>		10:00
10:15	Presentation of JUAS 2013 <i>L. Rinolfi</i>	RF Engineering tutorial <i>F. Caspers / S. Federmann</i>	Vacuum systems lecture <i>P. Chiggiato</i>	Vacuum systems lecture <i>P. Chiggiato</i>	Coffee Break		10:15
11:15	Presentation of students 2013 <i>L. Rinolfi</i>	RF Engineering lecture <i>F. Caspers</i>	Vacuum systems tutorial <i>P. Chiggiato / R. Kersevan</i>	Vacuum systems tutorial <i>P. Chiggiato / R. Kersevan</i>	Bus leaves at 11h30 at JUAS <i>(Lunch at CERN)</i>		11:15
12:15	WELCOME	LUNCH	LUNCH	LUNCH			12:15
13:00	COCKTAIL	Exercises in computer room	Exercises in computer room	Exercises in computer room			13:00
14:00	Introduction to CERN practical day <i>L. Rinolfi et al.</i>	RF Engineering lecture <i>F. Caspers</i>	Vacuum systems lecture <i>P. Chiggiato</i>	RF Engineering lecture <i>F. Caspers</i>			VISIT
15:00	RF Engineering lecture <i>F. Caspers</i>	RF Engineering tutorial <i>F. Caspers / S. Federmann</i>	Vacuum systems tutorial <i>P. Chiggiato / R. Kersevan</i>	RF Engineering tutorial <i>F. Caspers / S. Federmann</i>	AT		15:00
16:00	Coffee Break	Coffee Break	Coffee Break	Coffee Break	CERN		16:00
16:15	RF Engineering lecture <i>F. Caspers</i>	RF Engineering lecture <i>F. Caspers</i>	Seminar Hadron Therapy <i>A. Degiovani</i>	RF Engineering lecture <i>F. Caspers</i>			Return scheduled at 18h30
17:15							17:15

Visit at CERN: AD – Linac 2 – CLOUD - RF test stand



The Antiproton Decelerator machine



The CLOUD experiment



The Linac 2

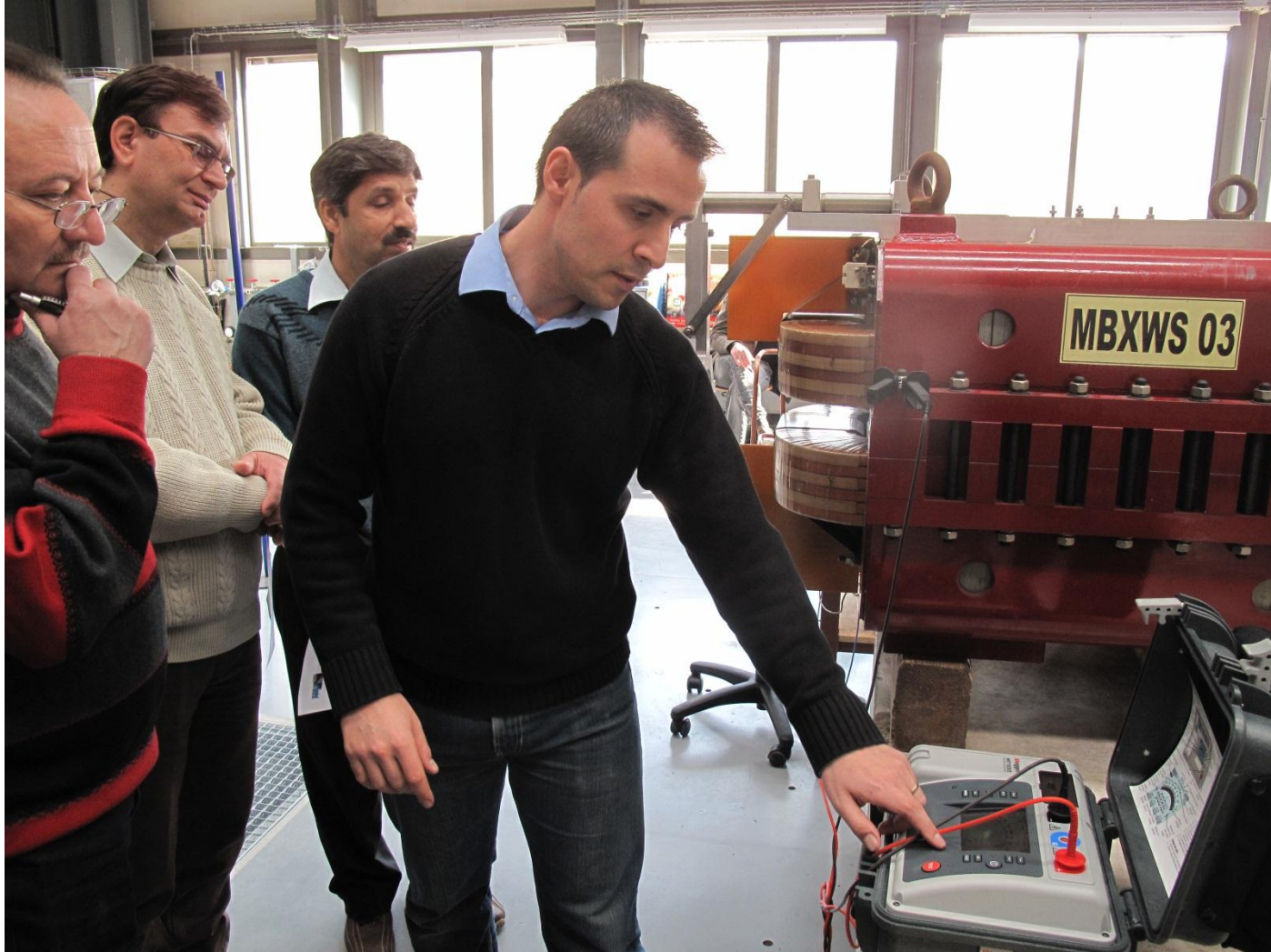
WEEK 7

	Monday Feb 18th	Tuesday Feb 19th	Wednesday Feb 20th	Thursday Feb 21st	Friday Feb 22nd	Saturday Feb 23th	
09:00	Magnets design lecture <i>S. Russenschuck</i>	Magnets design lecture <i>S. Russenschuck</i>	Superconducting magnets lecture <i>M. Wilson</i>	NC MAGNETS COMPUTER WORK	<i>Bus leaves at 8h30 at JUAS</i> <i>(lunch at CERN)</i> PRACTICAL WORKS AT CERN 1) RF 2) VACUUM 3) MAGNETS 4) SUPERCONDUCTIVITY <i>Return scheduled at 18h30</i>	From 9 AM to 18 PM Touristic excursion to Chamonix (optional)	09:00
10:00	Coffee Break	Coffee Break	Coffee Break	Coffee Break			10:00
10:15	Magnets design lecture <i>S. Russenschuck</i>	Magnets design lecture <i>S. Russenschuck</i>	Superconducting magnets tutorial <i>M. Wilson</i>	NC MAGNETS COMPUTER WORK			10:15
11:15	Magnets design lecture <i>S. Russenschuck</i>	Magnets design lecture <i>S. Russenschuck</i>	Superconducting magnets lecture <i>M. Wilson</i>				11:15
12:15	LUNCH	LUNCH	LUNCH	LUNCH			12:15
14:00	Normal Conducting magnets lecture <i>T. Zickler</i>	Superconducting magnets lecture <i>M. Wilson</i>	Superconducting magnets lecture <i>M. Wilson</i>	SC MAGNETS COMPUTER WORK			14:00
15:00	Normal Conducting magnets lecture <i>T. Zickler</i>	Superconducting magnets lecture <i>M. Wilson</i>	Mini workshop magnets <i>S. Russenschuck</i>				15:00
16:00	Coffee Break	Coffee Break	Coffee Break	Coffee Break			16:00
16:15	Normal Conducting magnets lecture <i>T. Zickler</i>	Superconducting magnets tutorial <i>M. Wilson</i>	Mini workshop magnets <i>S. Russenschuck</i>	Seminar Effects of radiation in particle accelerators <i>R. Losito</i>			16:15
17:15							17:15

RF practical day at CERN



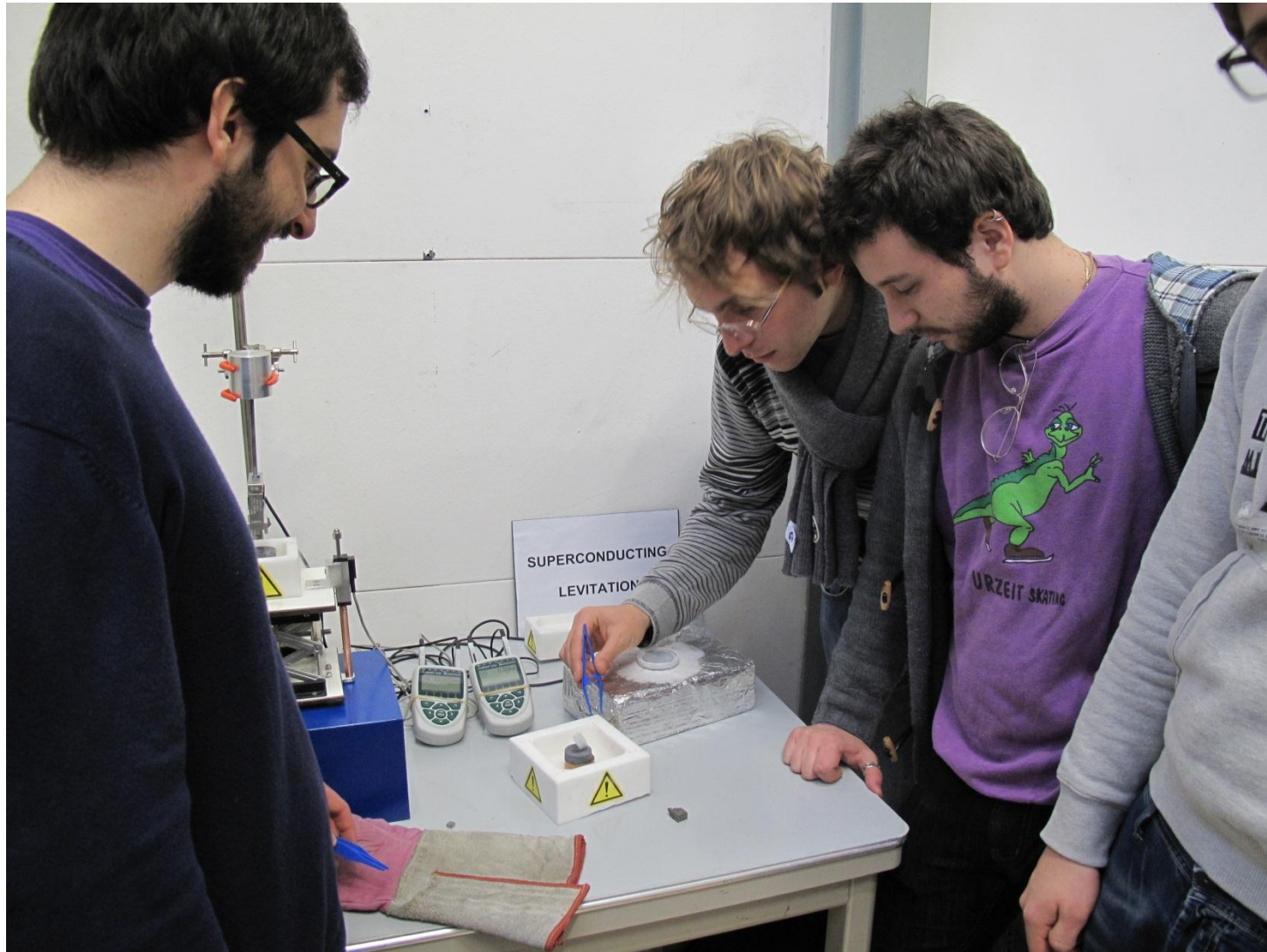
Magnets practical day at CERN



Vacuum practical day at CERN



Superconductivity practical day at CERN



WEEK 8

	Monday Feb 25th	Tuesday Feb 26th	Wednesday Feb 27th	Thursday Feb 28th	Friday Mar 1st			
09:00						09:00		
	Beam instrumentation lecture <i>P. Forck</i>	Beam instrumentation lecture <i>P. Forck</i>	Bus leaves at 8h at JUAS <i>Travel to Villigen</i>	VISIT PSI	Superconducting RF Cavities lecture <i>F. Caspers</i>			
10:00	Coffee Break	Coffee Break				Coffee Break	10:00	
10:15	Beam instrumentation lecture <i>P. Forck</i>	Beam instrumentation lecture <i>P. Forck</i>					10:15	
	Beam instrumentation lecture <i>P. Forck</i>	Beam instrumentation lecture <i>P. Forck</i>						
11:15	Beam instrumentation lecture <i>P. Forck</i>	Beam instrumentation lecture <i>P. Forck</i>					11:15	
	Beam instrumentation lecture <i>P. Forck</i>	Beam instrumentation lecture <i>P. Forck</i>						
12:15	LUNCH	LUNCH			<i>(Lunch at PSI)</i>	<i>(Lunch at PSI)</i>	LUNCH	12:15
	Exercise in computer room						Exercise in computer room	
14:00	Beam instrumentation tutorial <i>P. Forck</i>	Beam instrumentation tutorial <i>P. Forck</i>			VISIT	VISIT	Superconducting RF Cavities tutorial <i>F. Caspers / W. Weingarten</i>	14:00
	Beam instrumentation tutorial <i>P. Forck</i>	Beam instrumentation tutorial <i>P. Forck</i>			PSI	PSI	Superconducting RF Cavities tutorial <i>F. Caspers / W. Weingarten</i>	
15:00	Beam instrumentation lecture <i>P. Forck</i>	Beam instrumentation lecture <i>P. Forck</i>			Coffee Break	15:00		
	Beam instrumentation lecture <i>P. Forck</i>	Beam instrumentation lecture <i>P. Forck</i>			Superconducting RF Cavities lecture <i>F. Caspers</i>			
16:00	Coffee Break	Coffee Break	<i>(Dinner at PSI)</i>	<i>Return scheduled at 21h00</i>	Coffee Break	16:00		
16:15	Beam instrumentation lecture <i>P. Forck</i>	Beam instrumentation lecture <i>P. Forck</i>			Superconducting RF Cavities lecture <i>F. Caspers</i>	16:15		
	Beam instrumentation lecture <i>P. Forck</i>	Beam instrumentation lecture <i>P. Forck</i>						
17:15						17:15		

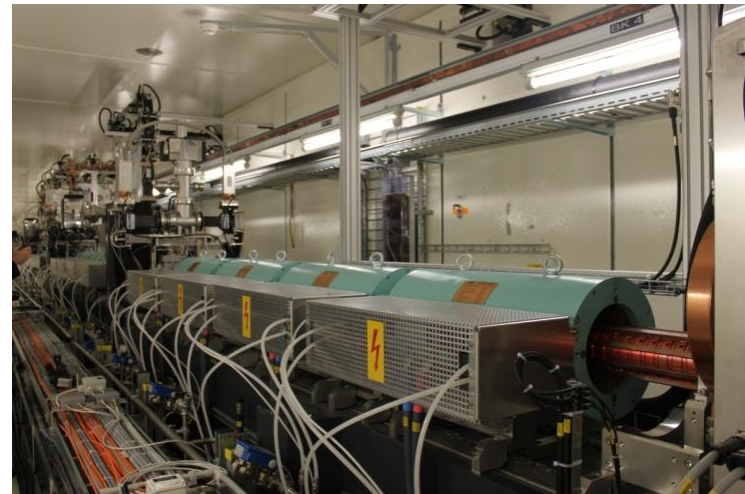
PSI* visit at Villigen (Zurich)



The SNQ source



The Cyclotron



The SLS Linac

(*) PSI = Paul Scherrer Institute

WEEK 9

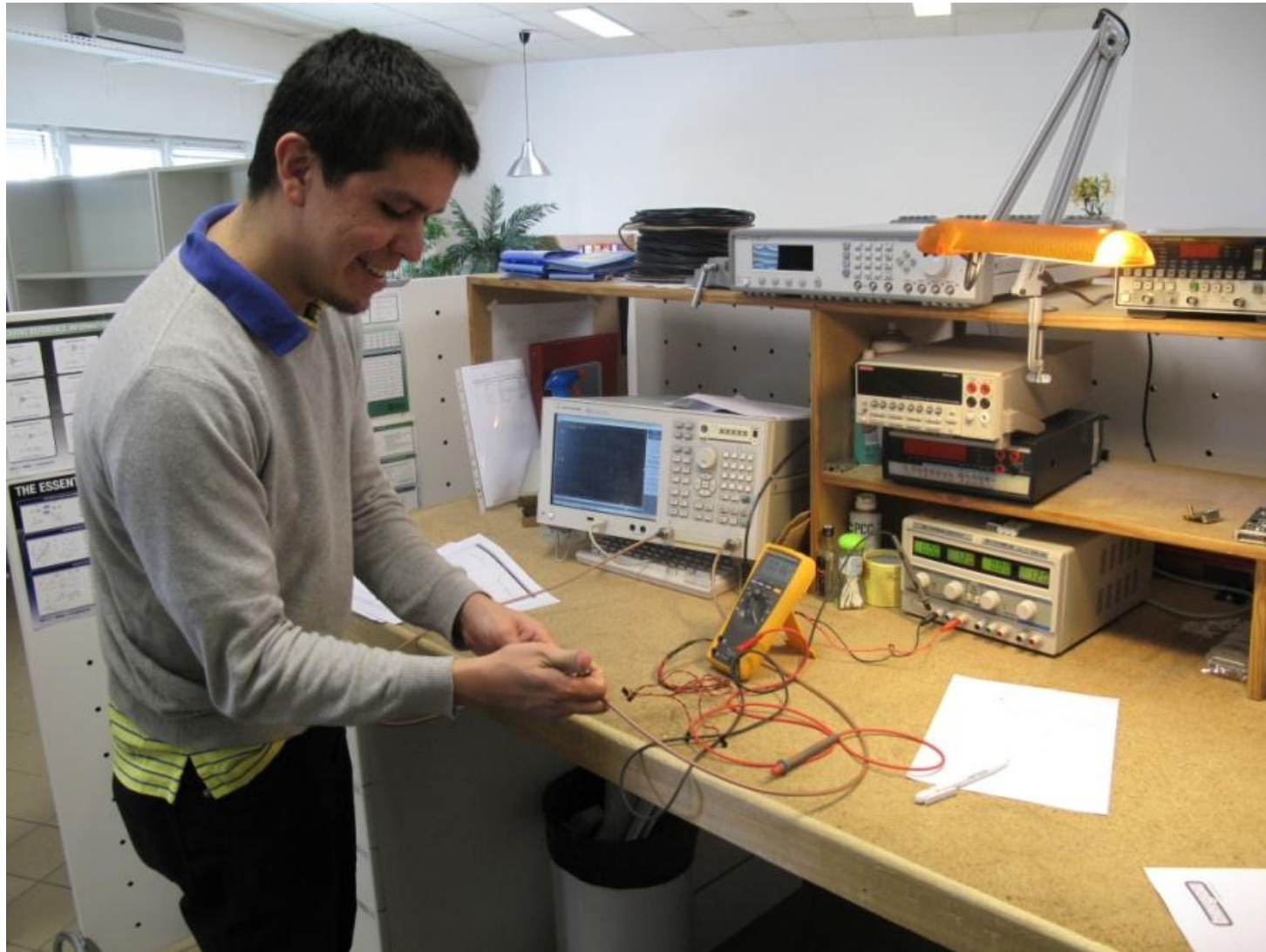
	Monday Mar 4th	Tuesday Mar 5th	Wednesday Mar 6th	Thursday Mar 7th	Friday Mar 8th		
09:00	Particle Sources lecture <i>H. Koivisto</i>	Low Energy Electron Accelerators lecture <i>W. Mondelaers</i>	Bus leaves at 8h30 VISIT AND EXPERIMENTAL WORK AT BERGOZ INSTRUMENTATION <i>(Lunch at Bergoz)</i> Return scheduled at 18h30	High Current Proton Linacs lecture <i>S. Bousson</i>	Production of medical isotopes lecture <i>G. Beyer</i>	09:00	
10:00	Coffee Break	Coffee Break		Coffee Break	Production of medical isotopes lecture <i>G. Beyer</i>	10:00	
10:15	Particle Sources lecture <i>H. Koivisto</i>	Low Energy Electron Accelerators lecture <i>W. Mondelaers</i>		High Current Proton Linacs lecture <i>S. Bousson</i>	Coffee Break	10:15	
11:15	Particle Sources lecture <i>H. Koivisto</i>	Low Energy Electron Accelerators lecture <i>W. Mondelaers</i>		High Current Proton Linacs lecture <i>S. Bousson</i>	Production of medical isotopes lecture <i>G. Beyer</i>	11:15	
12:15	LUNCH	LUNCH		LUNCH	LUNCH	12:15	
14:00	Particle Sources tutorial <i>H. Koivisto</i>	Acc. for indust. & medical applications lecture <i>P. Verbruggen</i>		Particle Sources lecture <i>H. Koivisto</i>	Acc. for indust. & medical applications lecture <i>P. Verbruggen</i>	Acc. for indust. & medical applications lecture <i>P. Verbruggen</i>	14:00
15:00	Accelerator Control lecture <i>E. Zimoch</i>	Acc. for indust. & medical applications lecture <i>P. Verbruggen</i>		Particle Sources lecture <i>H. Koivisto</i>	Acc. for indust. & medical applications lecture <i>P. Verbruggen</i>	Acc. for indust. & medical applications lecture <i>P. Verbruggen</i>	15:00
16:00	Coffee Break	Coffee Break		Coffee Break	Coffee Break	Coffee Break	16:00
16:15	Accelerator Control lecture <i>E. Zimoch</i>	Acc. for indust. & medical applications lecture <i>P. Verbruggen</i>		Particle Sources lecture <i>H. Koivisto</i>	Acc. for indust. & medical applications lecture <i>P. Verbruggen</i>	Acc. for indust. & medical applications lecture <i>P. Verbruggen</i>	16:15
17:15	Accelerator Control lecture <i>E. Zimoch</i>	Acc. for indust. & medical applications lecture <i>P. Verbruggen</i>		Particle Sources lecture <i>H. Koivisto</i>	Acc. for indust. & medical applications lecture <i>P. Verbruggen</i>	Acc. for indust. & medical applications lecture <i>P. Verbruggen</i>	17:15

HUG* visit at Geneva



(*) HUG = Hôpitaux Universitaires de Genève

Practical day at BERGOZ company



Reports on the practical days

On a voluntary basis, you are invited to write a small report related to your practical days either at CERN or/and at BERGOZ company.

According to the quality and the level of the report, a few **points could be added** to your examination results.

Two excursions are proposed for relaxation

- 1) They are on a voluntary basis but you should register
- 2) A small financial contribution is requested
- 3) No guided tours scheduled
- 4) Everybody is free to organize his Saturday
- 5) The bus driver does not speak English

Lyon – Saturday 16th February 2013



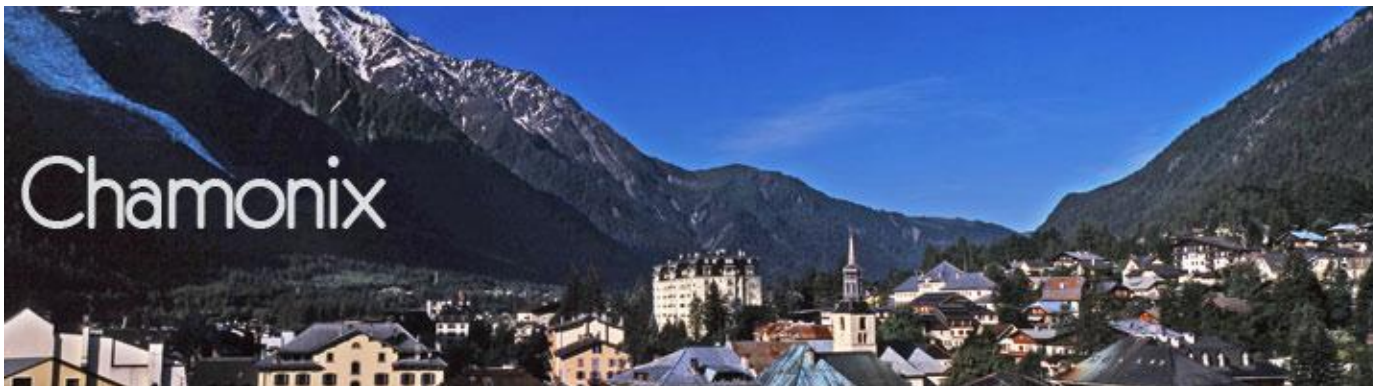
ONLY LYON 

*Find the map, in your bag
welcome bag*

Chamonix – Saturday 23rd February 2013



*All practical information available in
the Chamonix booklet, in your
welcome bag*



EXAMINATION

Examinations are mandatory for:

- * Master students
- * For students who have received a financial support

Each student who get an **average mark of 10/ 20** (or above) will receive **10 ECTS** recognized by the partner Universities.

There are 5 topics, each of them lasts 1 hour:

- * RF engineering
- * Magnets
- * Beam Instrumentation
- * **The remaining 2 exams are announced the week 9 (week before the exams)**

For each examination, all **written documents are permitted** and a pocket calculator.

It is strictly forbidden to have a electronic device (iPhone, Portable, etc...) during the exam

WEEK 10

	Monday Mar 11th	Tuesday Mar 12th	Wednesday Mar 13th	Thursday Mar 14th	Friday Mar 15th	
09:00						09:00
		EXAMINATION	EXAMINATION	EXAMINATION		
		RF	Magnets	Beam Instrumentation		
10:00		<i>Written session</i>	<i>Written session</i>	<i>Written session</i>		10:00
10:15						10:15
		Coffee Break	Coffee Break	Coffee Break		
			EXAMINATION	EXAMINATION		
11:15			Subject to be defined	Subject to be defined		11:15
12:15			<i>Written session</i>	<i>Written session</i>		12:15
13:00				BUFFET		
				END OF 2nd		
				JUAS SESSION		
14:00						14:00
15:00						15:00
16:00						16:00
16:15						16:15
17:15						17:15



Archamps, March, 30th 2012

JUAS CERTIFICATE 2012


TECHNOLOGY & APPLICATIONS OF PARTICLE ACCELERATORS

M 

has attended 4 weeks of lectures, tutorials and seminars at JUAS school in 2012. He has also participated in the fifth week of examination and has passed successfully the exams, for an equivalent of 10 ECTS (European Credit Transfer System), acknowledged by the 13 European Universities*.

Average score : 1/20

Rank : /28

Average score of the class : /20

Louis RINOLFI
JUAS Director

JUAS certificate of examination for course 2

*Each student who obtains a mark equal
(or above) to 10 / 20 will receive such
certificate*

Practical information (1)

The Time Table is displayed:

- ✓ in the Amphitheatre
- ✓ in the computer room
- ✓ on the web site
- ✓ in the institutes ...

if a discrepancy occurs, only what is displayed in the JUAS amphitheatre is effective

Books:

We have many accelerator publications and books, for loan, on the shelves in JUAS students room. They can be borrowed and kept for the duration of the school.

Please ask **Coline Creton** before borrowing, so that we know where books are.

Practical information (2)

Home work:

There is room within JUAS area for home work after lecture time, working in group as well. We encourage you to make small working teams, work together – just like in real “Accelerator Physicist's Life”.

Internet:

Each student will receive a password to connect to internet with a personal computer.

Wi-Fi is available in the Residences :

- ✓ La Colombiere, for free
- ✓ Logitop, for free
- ✓ Residential : ask **Marie Gauthier** to get a cable (5€ deposit), then ask Residential reception to get an access for free (valued 10€ per week). The school will pay at the end of your stay.

Computer Room:

There are 40 computers in the Computer Room :

Each participant will use a single computer available in the room.

Practical information (3)

JUAS web site: www.cern.ch/juas

Many useful information's:

The Time Table is kept updated when a change occurs for a lecture or a visit

All lectures and seminars are found inside Indico: see "JUAS in Indico"

<https://indico.cern.ch/categoryDisplay.py?categId=3833>


A lot of proposals for Traineeships, PhD, Jobs, etc.: under "Job opportunities"
see next slide

Job opportunities from JUAS

Being at JUAS is **THE** opportunity to find a position for an:

 Internship or traineeship in European Laboratories,

 Summer job,

 a PhD grant,

or other job opportunity.

-talk to the lecturers, question them on that.

-talk to people you'll meet during the various Laboratory visits.

-we keep updated the JUAS web site [see the link](#) [Job opportunities](#)

Last week:

A proposal for a traineeship of 6 to 8 months from BNL has been received

Practical information (4)

Coffee breaks:

Twice a day, morning and afternoon, the right place for discussions of all sort !

An accelerator world concept : 50% of the research is performed during coffee breaks.

The right place for discussing with lecturers and looking for a training period in an accelerator Laboratory.

Lunch:

The Alliance building has several restaurants... unless you do it home.

Ticket of 3 Euros will be provided by JUAS for one meal per day.

There is a restaurant Best Western, on the site. There is also a restaurant at [La Colombière](#),.

Dinner:

Everybody is free to organize himself.

Practical information (5)

Transportation:

It could be a problem because no public transportation close to JUAS building:

Bus stop at La Croix de Rozon (1200 m from JUAS) to Geneva

Bus stop at Vitam Park (800 m from La Colombière) for Geneva and for Annecy

However, some of you have cars:

⇒ **friendly spirit is welcome to share good moments, ideas and cars**

Super-market at St-Julien-en-Genevois : a shuttle bus is organized every Monday at 5.15pm

Read brochure “Students Information file” given to you or ask Coline for detailed information

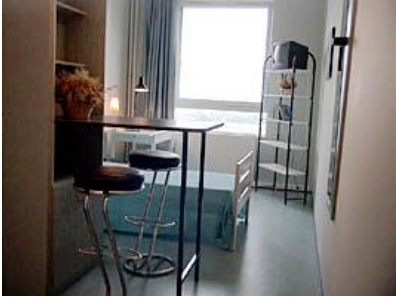


STUDENTS' INFORMATION FILE JUAS 2013

Additional Information to our website :

www.cern.ch/juas

Lodging Facilities in Archamps



LOGITOP : Individual studio with free Wi-Fi



LA COLOMBIERE : Mobil-homes with free Wi-Fi



RESIDENTIAL : Apartments with Wi-Fi paid by JUAS

About accommodation

- **RESIDENTIAL Residence (Archamps)**

Contact person : Ms Bernadette Depierre (Laetitia, the assistant speaks English)

Mobile phone : +33.6.17.97.32.25

Phone number : +33.4.50.31.25.25

- **Logitop Résidence Grand Angle (Archamps)**

Contact person : Ms Joelle ROUVIERE

Phone number : +33.4.50.43.26.00

- **La Colombière (Neydens)**

166 Chemin Neuf, 74160 Neydens

Famille BUSSAT

Phone number : +33.4.50.35.13.14

www.camping-la-colombiere.com

- **IBIS Hotel (Archamps)**

Phone number : + 33-(0)4-50-95-38-18

Fax number : + 33-(0)4-50-95-38-95

Website : www.ibishotel.com

Your contribution to JUAS

Presence sheets :

To be signed once a day, in the morning.

We need it for Administration purposes (funding, statistics, etc...)

Appreciation sheets :

JUAS needs your appreciations on the lectures and lecturers.

Appreciation forms will be given to you for that purpose.

Please bend down on that form as long as necessary, think of it, fill it,

and... *return it to us ...*

Appreciation sheets

You do not have to put your name on the form, although it can be useful for us to know which country / university system you come from when analysing your comments.

MARKING

Between 0 and 5 Example :

Requested Level	Oral Presentation (Pedagogy)	Written Documentation
Too much = 5 As expected = 3 Too low = 0	Excellent = 5 Satisfactory = 3 Bad = 0	Excellent = 5 Satisfactory = 3 Not acceptable = 0

Name (optional) : _____

Accelerator Conference prize for JUAS

Each year JUAS is allotted a grant by the

International Particle Accelerator Conference called “IPAC”

The requirements to attend IPAC Conferences are the following:

1. To follow both JUAS courses
2. To obtain the best marks at the examination
3. To continue in the field of particle accelerator at the time of the conference
4. To be proposed by JUAS Director to IPAC Conferences Coordinator
5. To present work at the conference, abstract/poster and contribution to proceedings
6. To serve as required, scientific secretary, etc. as for other supported students

JUAS laureates

2006 : Javier Barranco	UPC Madrid,	PAC 2007, US
2006 : Matthias Euler	TU-Darmstadt,	EPAC 2008, Genoa
2007 : Alexandre Pichard	INP-Grenoble,	EPAC 2008, Genoa
2008 : Christopher Bauer	TU-Darmstadt,	PAC 2009, Vancouver
2009 : Timo Bloch	TU-Darmstadt,	IPAC 2010, Kyoto, 23-28 May
2010: Philipp John	TU-Darmstadt	IPAC 2011, San Sebastian, 4-9 September
2010: Javier Jongalez	Valencia - Spain	IPAC 2011, San Sebastian, 4-9 September
2011: Yan Dutheil	J. Fourier Grenoble	IPAC 2012, New Orleans, 20-25 May
2012: Robert Stegmann	TU-Darmstadt	IPAC 2012, New Orleans, 20-25 May

Future JUAS Promotion:

1 grant for JUAS 2013 student to attend IPAC'13 (Shanghai – China, 12 – 17 May)

	Countries	Sudents
1	Argentina	1
2	Austria	1
3	Belgium	1
4	China	3
5	Denmark	4
6	France	12
7	Germany	7
8	Greece	1
9	India	2
10	Iran	2
11	Italy	13
12	Japan	1
13	Morocco	1
14	Mexico	1
15	Montenegro	1
16	Pakistan	1
17	Poland	2
18	Portugal	1
19	Spain	5
20	Tunisia	2
21	United Kingdom	1
22	Ukraine	1
Total	22	64

Participants in 2013
by country
(Alphabetic order)

JUAS 2013 – Photo

Today Monday 11th February 2013 at 11.45 a.m.



Students JUAS 2013 – Course 1

Last but not least ...

Please **ARRIVE ON TIME AT THE LECTURES**

It means, manage to be installed 5 minutes ahead of schedule
(usually 9 a.m., morning and 2 p.m., afternoon session)

*lectures are short, lecturers cannot afford wasting time
being late means disturbing everyone, including the lecturers...*

Now you are ready to start the first course:
“Technology & Applications of Particles Accelerators”

I wish you a pleasant stay at JUAS 2013