

# JUAS 2024 - DRAFT PROGRAM

(COURSE 1)

WEEK #1



	15 Jan. Monday	16 Jan. Tuesday	17 Jan. Wednesday	18 Jan. Thursday	19 Jan. Friday		
<b>MORNING</b>  (From 9:00 to 12:00)		Transverse Beam Dynamics B. Holzer	Transverse Beam Dynamics B. Holzer	Transverse Beam Dynamics B. Holzer	Transverse Beam Dynamics B. Holzer	09:00 - 10:00	
		Transverse Beam Dynamics B. Holzer	Transverse Beam Dynamics B. Holzer	Transverse Beam Dynamics B. Holzer	Transverse Beam Dynamics B. Holzer	10:00 - 11:00	
		(10:30 - 12:30) <b>OFFICIAL OPENING:</b> Presentation of JUAS & Introduction of students E. Métral, B. Holland, S. Vandergooten	Transverse Beam Dynamics B. Holzer	Transverse Beam Dynamics B. Holzer	Transverse Beam Dynamics B. Holzer	Transverse Beam Dynamics B. Holzer	11:00 - 12:00
							12:00 - 13:30
<b>AFTERNOON</b>  (From 13:30 onwards)	(14:00 - 15:30) Special relativity, electromagnetism, classical & quantum mechanics: What to remember for particle accelerators E. Métral	Longitudinal Beam Dynamics A. Lasheen	Longitudinal Beam Dynamics A. Lasheen	Longitudinal Beam Dynamics A. Lasheen	Longitudinal Beam Dynamics A. Lasheen	13:30 - 14:30	
		Longitudinal Beam Dynamics A. Lasheen	Longitudinal Beam Dynamics A. Lasheen	Longitudinal Beam Dynamics A. Lasheen	Longitudinal Beam Dynamics A. Lasheen	14:30 - 15:30	
	Particle Accelerators in the 21st century Seminar M. Vretenar	Longitudinal Beam Dynamics A. Lasheen	Longitudinal Beam Dynamics A. Lasheen	Longitudinal Beam Dynamics A. Lasheen	Longitudinal Beam Dynamics A. Lasheen	Longitudinal Beam Dynamics A. Lasheen	15:30 - 16:30
	CHECK-IN AT THE RESIDENCE & SHOPPING FOR GROCERIES	Introduction to CERN & its Accelerator Complex Seminar R. Steerenberg		Intro on Colliders Seminar E. Métral			16:30 - 17:30

# JUAS 2023 - PROGRAM

(COURSE 1)

WEEK #2



	22 Jan. Monday	23 Jan. Tuesday	24 Jan. Wednesday	25 Jan. Thursday	26 Jan. Friday	
<b>MORNING</b>  (From 9:00 to 12:00)	<b>Introduction to MAD-X</b> <i>N. Fuster Martinez</i>	<b>Introduction to PyHeadTail</b> <i>B. Salvant</i>	<b>PyHeadTail workshop</b> <i>B. Salvant</i>	<b>Linacs</b> <i>D. Alesini</i>	<b>Linacs</b> <i>D. Alesini</i>	09:00 - 10:00
	<b>Transverse Beam Dynamics</b> (exam preparation) <i>B. Holzer</i>	<b>Longitudinal Beam Dynamics</b> (exam preparation) <i>A. Lasheen</i>	<b>PyHeadTail workshop</b> <i>B. Salvant</i>	<b>Linacs</b> <i>D. Alesini</i>	<b>Linacs</b> <i>D. Alesini</i>	10:00 - 11:00
	<b>Transverse Beam Dynamics</b> (exam preparation) <i>B. Holzer</i>	<b>Longitudinal Beam Dynamics</b> (exam preparation) <i>A. Lasheen</i>	<b>PyHeadTail workshop</b> <i>B. Salvant</i>	<b>Linacs</b> <i>D. Alesini</i>	<b>Linacs</b> <i>D. Alesini</i>	11:00 - 12:00
						12:00 - 13:30
<b>AFTERNOON</b>  (From 13:30 onwards)	<b>MADX workshop</b> <i>N. Fuster Martinez</i>	<b>MADX workshop</b> <i>N. Fuster Martinez</i>	<b>Linacs</b> <i>D. Alesini</i>	<b>Transverse linear imperfections</b> <i>D. Gamba</i>	<b>Transverse linear imperfections</b> <i>D. Gamba</i>	13:30 - 14:30
	<b>MADX workshop</b> <i>N. Fuster Martinez</i>	<b>MADX workshop</b> <i>N. Fuster Martinez</i>	<b>Linacs</b> <i>D. Alesini</i>	<b>Transverse linear imperfections</b> <i>D. Gamba</i>	<b>Transverse linear imperfections</b> <i>D. Gamba</i>	14:30 - 15:30
	<b>MADX workshop</b> <i>N. Fuster Martinez</i>	<b>MADX workshop</b> <i>N. Fuster Martinez</i>	<b>Transverse linear imperfections</b> <i>D. Gamba</i>	<b>Transverse linear imperfections</b> <i>D. Gamba</i>	<b>Transverse linear imperfections</b> <i>D. Gamba</i>	15:30 - 16:30
	<b>LHC &amp; HL-LHC</b> Seminar <i>O. Brüning</i>	<b>Electron-positron circular colliders</b> Seminar <i>J. Keintzel</i>	<b>Transverse linear imperfections</b> <i>D. Gamba</i>	<b>FCC-hh</b> Seminar <i>M. Giovannozzi</i>		16:30 - 17:30

# JUAS 2023 - PROGRAM

(COURSE 1)

WEEK #3



	29 Jan. Monday	30 Jan. Tuesday	31 Jan. Wednesday	1 Feb. Thursday	2 Feb. Friday	
<b>MORNING</b>  (From 9:00 to 12:00)	<b>WRITTEN EXAMINATION</b> (09:00 - 10:30)  <u>Transverse beam dynamics</u>	Cyclotrons & FFAs <i>B. Jacquot</i>	Synchrotron Radiation <i>R. Ischebeck</i>	Synchrotron Radiation <i>R. Ischebeck</i>	Synchrotron Radiation <i>R. Ischebeck</i>	09:00 - 10:00
	<b>WRITTEN EXAMINATION</b> (11:30 - 13:00)  <u>Longitudinal beam dynamics</u>	Cyclotrons & FFAs <i>B. Jacquot</i>	Synchrotron Radiation <i>R. Ischebeck</i>	Synchrotron Radiation <i>R. Ischebeck</i>	Synchrotron Radiation <i>R. Ischebeck</i>	10:00 - 11:00
		Cyclotrons & FFAs <i>B. Jacquot</i>	Synchrotron Radiation <i>R. Ischebeck</i>	Synchrotron Radiation <i>R. Ischebeck</i>	Synchrotron Radiation (exam preparation) <i>R. Ischebeck</i>	11:00 - 12:00
						12:00 - 13:30
<b>AFTERNOON</b>  (From 13:30 onwards)	Trip to CERN	Nuclear collisions at the LHC Seminar <i>J. Jowett</i>	Synchrotron Radiation <i>R. Ischebeck</i>	Synchrotron Radiation <i>R. Ischebeck</i>	Synchrotron Radiation (exam preparation) <i>R. Ischebeck</i>	13:30 - 14:30
	Visit of the CERN LEIR accelerator <i>N. Biancacci</i>	Future high-energy linear colliders Seminar <i>P. Burrows</i>	Cyclotrons & FFAs <i>B. Jacquot</i>	Transverse nonlinear effects <i>H. Bartosik</i>	Transverse nonlinear effects <i>H. Bartosik</i>	14:30 - 15:30
	Visit to ALICE experiment (CERN LHC) <i>J. Jowett</i>	Muon collider Seminar <i>D. Schulte</i>	Cyclotrons & FFAs <i>B. Jacquot</i>	Transverse nonlinear effects <i>H. Bartosik</i>	Transverse nonlinear effects <i>H. Bartosik</i>	15:30 - 16:30
	Visit of the CCC	The US Electron-Ion collider (Zoom PPT) Seminar <i>T. Satogata</i>	Cyclotrons & FFAs <i>B. Jacquot</i>	Transverse nonlinear effects <i>H. Bartosik</i>	Transverse nonlinear manipulations Seminar <i>M. Giovannozzi</i>	16:30 - 17:30
	Dinner at CERN					17:30 - Onwards

# JUAS 2023 - PROGRAM

(COURSE 1)

WEEK #4



	5 Feb. Monday	6 Feb. Tuesday	7 Feb. Wednesday	8 Feb. Thursday	9 Feb. Friday	
<b>MORNING</b>  (From 9:00 to 12:00)	<b>WRITTEN EXAMINATION</b> (09:00 - 10:30)  Synchrotron Radiation	Accelerator design B. Härer	Collective effects (mainly space charge & instabilities) M. Migliorati	Collective effects (mainly space charge & instabilities) M. Migliorati	Accelerator design <u>Workshop</u> A. Oeftiger	09:00 - 10:00
		Accelerator design B. Härer	Collective effects (mainly space charge & instabilities) M. Migliorati	Collective effects (mainly space charge & instabilities) M. Migliorati	Accelerator design <u>Workshop</u> A. Oeftiger	10:00 - 11:00
	Free-Electron Lasers Seminar E. Prat Costa	Accelerator design B. Härer	Collective effects (mainly space charge & instabilities) M. Migliorati	Collective effects (mainly space charge & instabilities) M. Migliorati	Accelerator design <u>Workshop</u> A. Oeftiger	11:00 - 12:00
						12:00 - 13:30
<b>AFTERNOON</b>  (From 13:30 onwards)	Injection / Extraction N. Carmignani	Collective effects (mainly space charge & instabilities) M. Migliorati	Collective effects (mainly space charge & instabilities) M. Migliorati	Collective effects (mainly space charge & instabilities) M. Migliorati	CERN LIU Project: Beam dynamics aspects & solutions Seminar G. Rumolo	13:30 - 14:30
	Injection / Extraction N. Carmignani	Collective effects (mainly space charge & instabilities) M. Migliorati	Beam-based impedance measurements Seminar N. Biancacci	Novel High Gradient Particle Accelerators Seminar R. Assmann	Accelerator design <u>Workshop</u> A. Oeftiger	14:30 - 15:30
	Injection / Extraction N. Carmignani	Collective effects (mainly space charge & instabilities) M. Migliorati	Accelerator design B. Härer	Accelerator design <u>Workshop</u> A. Oeftiger	Accelerator design <u>Workshop</u> A. Oeftiger	15:30 - 16:30
	Fixed-target beamlines Seminar A. Gerbershagen	Collective effects (mainly space charge & instabilities) M. Migliorati	Accelerator design B. Härer	Accelerator design <u>Workshop</u> A. Oeftiger	Accelerator design <u>Workshop</u> A. Oeftiger	16:30 - 17:30

# JUAS 2023 - PROGRAM

(COURSE 1)

## WEEK #5



	12 Feb. Monday	13 Feb. Tuesday	14 Feb. Wednesday	15 Feb. Thursday	16 Feb. Friday	
<b>MORNING</b>  (From 9:00 to 12:00)	Accelerator design <u>Workshop</u> <i>A. Oeftiger</i>	<b>ORAL EXAMINATION</b> Accelerator design	PRIVATE STUDIES	Trip to ESRF	CHECK-OUT AT THE RESIDENCE	09:00 - 10:00
	Accelerator design <u>Workshop</u> <i>A. Oeftiger</i>					<b>WRITTEN EXAMINATION</b> <u>Subject 4 (TBA mid week 4)</u>
	Accelerator design <u>Workshop</u> <i>A. Oeftiger</i>		<b>CLOSING SESSION</b> Course 1 + Final Drink & lunch	11:00 - 12:00		
<b>AFTERNOON</b>  (From 13:30 onwards)	PRIVATE STUDIES	<b>ORAL EXAMINATION</b> Accelerator design		PRIVATE STUDIES	Visit of ESRF: Intro, Scientific case & Facility <i>J-L. Revol</i>	
			Accelerator design: Summary discussion A. Oeftiger et al.			
		Accelerator design: Summary discussion A. Oeftiger et al.		<b>WRITTEN EXAMINATION</b> <u>Subject 5 (TBA mid week 4)</u>	Visit of ESRF: Control room & Beamline <i>J-L. Revol</i>	
15:30 - 16:30						

# JUAS 2023 - PROGRAM

## WEEK #6

(COURSE 2)



	19 Feb. Monday	20 Feb. Tuesday	21 Feb. Wednesday	22 Feb. Thursday	23 Feb. Friday		
<b>MORNING</b>  (From 9:00 to 12:00)		<b>Introduction to RF</b> A. Mostacci	<b>Introduction to RF</b> A. Mostacci	<b>RF Engineering</b> C. Vollinger, M. Wendt	<b>RF Engineering</b> C. Vollinger, M. Wendt	09:00 - 10:00	
		<b>Introduction to RF</b> A. Mostacci	<b>RF Engineering</b> C. Vollinger, M. Wendt	<b>RF Engineering</b> C. Vollinger, M. Wendt	<b>RF Engineering</b> C. Vollinger, M. Wendt	10:00 - 11:00	
	<b>(10:30) OFFICIAL OPENING:</b> <b>Presentation of JUAS &amp; Introduction of students</b> E. Métral, B. Holland, S. Vandergooten	<b>Introduction to RF</b> A. Mostacci	<b>RF Engineering</b> C. Vollinger, M. Wendt	<b>RF Engineering</b> C. Vollinger, M. Wendt	<b>RF Engineering</b> C. Vollinger, M. Wendt	<b>RF Engineering</b> C. Vollinger, M. Wendt	11:00 - 12:00
							12:00 - 13:30
<b>AFTERNOON</b>  (From 13:30 onwards)	<b>Particle accel., instruments of discovery in physics (Seminar)</b> P. Lebrun	<b>Normal Conducting Magnets INTRODUCTION (Lect. #1)</b> T. Zickler	<b>Normal Conducting Magnets MAGNET CONSTRUCTION (Lect. #4)</b> T. Zickler	<b>Normal Conducting Magnets CASE STUDY INTRODUCTION (Lect. #7)</b> J. Bauche, T. Zickler	<b>Normal Conducting Magnets CASE STUDY #2</b> (by sub-groups #6) J. Bauche, T. Zickler	13:30 - 14:30	
	<b>Introduction to CERN practical days</b> Magnet / SC / RF / Vacuum / CLEAR J. Bauche, J. Fleiter, F. Caspers, V. Baglin, R. Corsini, P. Korysko	<b>Normal Conducting Magnets BASIC PRINCIPLES (Lect. #2)</b> T. Zickler	<b>Normal Conducting Magnets ANALYTICAL DESIGN (Lect. #5)</b> T. Zickler	<b>Normal Conducting Magnets CASE STUDY #1</b> (by sub-groups #6) J. Bauche, T. Zickler	<b>Normal Conducting Magnets CASE STUDY #3</b> (by sub-groups #6) J. Bauche, T. Zickler	14:30 - 15:30	
	<b>CHECK-IN AT THE RESIDENCE &amp; SHOPPING FOR GROCERIES</b>	<b>Normal Conducting Magnets MAGNET TYPES (Lect. #3)</b> T. Zickler	<b>Normal Conducting Magnets NUMERICAL DESIGN (Lect. #6)</b> T. Zickler	<b>Normal Conducting Magnets CASE STUDY #1 (Cont'd)</b> (by sub-groups #6) J. Bauche, T. Zickler	<b>Normal Conducting Magnets CASE STUDY #4</b> (by sub-groups #6) J. Bauche, T. Zickler	15:30 - 16:30	
	<b>+ ELENA (TBC via D. Gamba)</b>						

# JUAS 2023 - PROGRAM

(COURSE 2)

WEEK #7



	26 Feb. Monday	27 Feb. Tuesday	28 Feb. Wednesday	29 Feb. Thursday	1 Mar. Friday	
<b>MORNING</b>  (From 9:00 to 12:00)	<b>RF Engineering</b> C. Vollinger, M. Wendt	<b>RF Engineering</b> C. Vollinger, M. Wendt	<b>Vacuum systems</b> V. Baglin & R. Kersevan	<b>Vacuum systems</b> V. Baglin & R. Kersevan	<b>Vacuum systems</b> V. Baglin & R. Kersevan	09:00 - 10:00
	<b>RF Engineering</b> C. Vollinger, M. Wendt	<b>RF Engineering</b> (exam preparation) C. Vollinger, M. Wendt	<b>Vacuum systems</b> V. Baglin & R. Kersevan	<b>Vacuum systems</b> V. Baglin & R. Kersevan	<b>Vacuum systems</b> V. Baglin & R. Kersevan	10:00 - 11:00
	<b>RF Engineering</b> C. Vollinger, M. Wendt	<b>RF Engineering</b> (exam preparation) C. Vollinger, M. Wendt	<b>Vacuum systems</b> V. Baglin & R. Kersevan	<b>Vacuum systems</b> V. Baglin & R. Kersevan	<b>Vacuum systems</b> V. Baglin & R. Kersevan	11:00 - 12:00
						12:00 - 13:30
<b>AFTERNOON</b>  (From 13:30 onwards)	<b>Normal Conducting Magnets</b> <u>CASE STUDY</u> (Oral presentation by group/students) J. Bauche, T. Zickler	<b>Superconductivity (intro):</b> RF vs. magnets C. Antoine	<b>Vacuum systems</b> V. Baglin & R. Kersevan	<b>Superconducting magnets</b> P. Ferracin	<b>Superconducting magnets</b> P. Ferracin	13:30 - 14:30
	<b>Normal Conducting Magnets</b> <u>CASE STUDY</u> (Oral presentation by group/students) J. Bauche, T. Zickler	<b>Superconductivity (intro):</b> RF vs. magnets C. Antoine	<b>Superconducting RF Cavities</b> F. Caspers, S. Calatroni	<b>Superconducting magnets</b> P. Ferracin	<b>Superconducting magnets</b> P. Ferracin	14:30 - 15:30
	<b>Normal Conducting Magnets</b> <u>TUTORIAL</u> J. Bauche, T. Zickler	<b>Superconductivity (intro):</b> RF vs. magnets C. Antoine	<b>Superconducting RF Cavities</b> F. Caspers, S. Calatroni	<b>Superconducting magnets</b> P. Ferracin	<b>Superconducting magnets</b> P. Ferracin	15:30 - 16:30
	<b>Normal Conducting Magnets</b> <u>TUTORIAL</u> J. Bauche, T. Zickler	<b>Cryogenics for Superconducting devices</b> P. Lebrun	<b>Materials for SCRF cavities: Beyond niobium (Seminar)</b> S. Calatroni	<b>Superconducting magnets</b> P. Ferracin	<b>Superconducting magnets</b> (exam preparation) P. Ferracin	16:30 - 17:30
			(18:00 - 20:00) Special afterwork drink with RF questions to Fritz Caspers			

# JUAS 2023 - PROGRAM

(COURSE 2)

WEEK #8



	4 Mar. Monday	5 Mar. Tuesday	6 Mar. Wednesday	7 Mar. Thursday	8 Mar. Friday	
<b>MORNING</b>  (From 9:00 to 12:00)	<b>WRITTEN EXAMINATION</b>  RF Engineering	Beam instrumentation <i>P. Forck</i>	Beam instrumentation <i>P. Forck</i>	Beam instrumentation <i>P. Forck</i>	Beam instrumentation <i>P. Forck</i>	09:00 - 10:00
		Beam instrumentation <i>P. Forck</i>	Beam instrumentation <i>P. Forck</i>	Beam instrumentation <i>P. Forck</i>	Beam instrumentation <i>P. Forck</i>	10:00 - 11:00
		Beam instrumentation <i>P. Forck</i>	Beam instrumentation <i>P. Forck</i>	Beam instrumentation <i>P. Forck</i>	Beam instrumentation <i>P. Forck</i>	11:00 - 12:00
	<b>WRITTEN EXAMINATION</b>  Magnets (Normal & Superconducting) + report for NC from students to be given before (prep. for exam)					12:00 - 13:30
<b>AFTERNOON</b>  (From 13:30 onwards)	Trip to CERN	Particle Sources <i>T. Thuillier</i>	Particle Sources <i>T. Thuillier</i>	Visit & Experimental work at Bergoz Instrumentation E. Touzain	Beam instrumentation (exam preparation) <i>P. Forck</i>	13:30 - 14:30
	Visit of LINAC4 A. Lombardi, J-B. Lallement	Particle Sources <i>T. Thuillier</i>	Particle Sources <i>T. Thuillier</i>	Visit & Experimental work at Bergoz Instrumentation E. Touzain	Beam instrumentation (exam preparation) <i>P. Forck</i>	14:30 - 15:30
	Visit of AD ELENA C. Carli	Particle Sources <i>T. Thuillier</i>	Particle Sources <i>T. Thuillier</i>	Visit & Experimental work at Bergoz Instrumentation E. Touzain	Energy recovery linacs Seminar M. Arnold	15:30 - 16:30
	Visit of THIN FILM COATING FACILITIES P. Costa Pinto, W. Vollenberg	Bench-impedance measurements & materials characterization Seminar N. Biancacci	Muon Colliders & associated technological challenges Seminar L. Bottura	Visit & Experimental work at Bergoz Instrumentation E. Touzain		16:30 - 17:30
	Visit CLEAR P. Korysko					17:30 - Onwards
	Dinner at CERN					



# JUAS 2023 - PROGRAM

(COURSE 2)

WEEK #9



	11 Mar. Monday	12 Mar. Tuesday	13 Mar. Wednesday	14 Mar. Thursday	15 Mar. Friday	
<b>MORNING</b>  (From 9:00 to 12:00)	<b>WRITTEN EXAMINATION</b> (09:00 - 10:30)  Beam Instrumentation	Practical days at CERN RF / SC / VACUUM / MAGNET / CLEAR	Practical days at CERN RF / SC / VACUUM / MAGNET / CLEAR	Low Energy Accelerators W. Mondelaers	Acc. for medical & industrial applications E. Vanderkraaij	09:00 - 10:00
		Practical days at CERN RF / SC / VACUUM / MAGNET / CLEAR	Practical days at CERN RF / SC / VACUUM / MAGNET / CLEAR	Low Energy Accelerators W. Mondelaers	Acc. for medical & industrial applications E. Vanderkraaij	10:00 - 11:00
	Life-cycle and operability of particle accelerators S. Meyroneinc	Practical days at CERN RF / SC / VACUUM / MAGNET / CLEAR	Practical days at CERN RF / SC / VACUUM / MAGNET / CLEAR	Low Energy Accelerators W. Mondelaers	Acc. for medical & industrial applications E. Vanderkraaij	11:00 - 12:00
<b>AFTERNOON</b>  (From 13:30 onwards)	Life-cycle and operability of particle accelerators S. Meyroneinc	Practical days at CERN RF / SC / VACUUM / MAGNET / CLEAR	Practical days at CERN RF / SC / VACUUM / MAGNET / CLEAR	Survey and Alignment of Accelerators J-C. Gayde	Radiation safety X. Queralt	12:00 - 13:30
	High Power Proton Linacs M. Eshraqi	Practical days at CERN RF / SC / VACUUM / MAGNET / CLEAR	Practical days at CERN RF / SC / VACUUM / MAGNET / CLEAR	Survey and Alignment of Accelerators J-C. Gayde	Radiation safety X. Queralt	13:30 - 14:30
	High Power Proton Linacs M. Eshraqi	Practical days at CERN RF / SC / VACUUM / MAGNET / CLEAR	Practical days at CERN RF / SC / VACUUM / MAGNET / CLEAR	Survey and Alignment of Accelerators J-C. Gayde	Radiation safety X. Queralt	14:30 - 15:30
	High Power Proton Linacs M. Eshraqi			Accelerator driven system Seminar F. Bouly	AWAKE Seminar E. Gschwendtner	15:30 - 16:30
						16:30 - 17:30

# JUAS 2023 - PROGRAM

## WEEK #10

(COURSE 2)



	18 Mar. Monday	19 Mar. Tuesday	20 Mar. Wednesday	21 Mar. Thursday	22 Mar. Friday	
<b>MORNING</b>  (From 9:00 to 12:00)	<b>WRITTEN EXAMINATION</b> (09:00 - 10:30)  <u>Subject 4 (TBA mid week 9)</u>	<b>ORAL EXAMINATION</b>  Practical days @CERN	Trip to PSI	<u>Visit of PSI</u> - ProScan presentation - SLS presentation & tour - SwissFEL presentation & tour - <b>Accelerator controls (E. Zimoch)</b> - Machine learning - Dielectric laser accelerators	<b>CHECK-OUT AT THE RESIDENCE</b>	09:00 - 10:00
	<b>WRITTEN EXAMINATION</b> (11:30 - 13:00)  <u>Subject 5 (TBA mid week 9)</u>					<b>CLOSING SESSION</b> Course 2 + Final Drink & lunch
<b>AFTERNOON</b>  (From 13:30 onwards)	PRIVATE STUDIES	Trip to Geneva Hospital	<u>Visit of PSI</u> - ProScan presentation - SLS presentation & tour - SwissFEL presentation & tour - <del>Accelerator controls</del> - Machine learning - Dielectric laser accelerators	Trip back from PSI		12:00 - 13:30
		Visit to Geneva Hospital				13:30 - 14:30
		Radiation Oncology: Biology, Physics & Clinical Applications (Seminar) <i>A. Durham</i>				14:30 - 15:30
						15:30 - 16:30
			Dinner @PSI			17:30 - Onwards