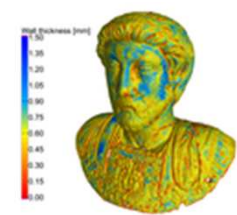
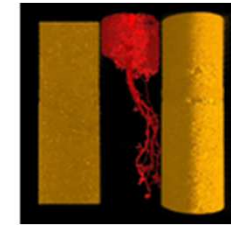
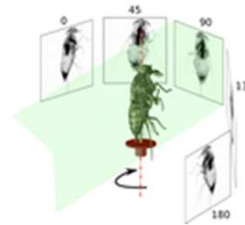
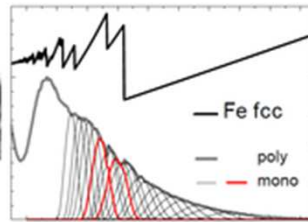
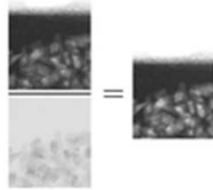




$$\frac{I_{wet}}{I_{dry}} =$$



AUNIRA 2015

Advanced Use of Neutron Imaging
for Research and Applications

28.9.-2.10.2015

SINQ

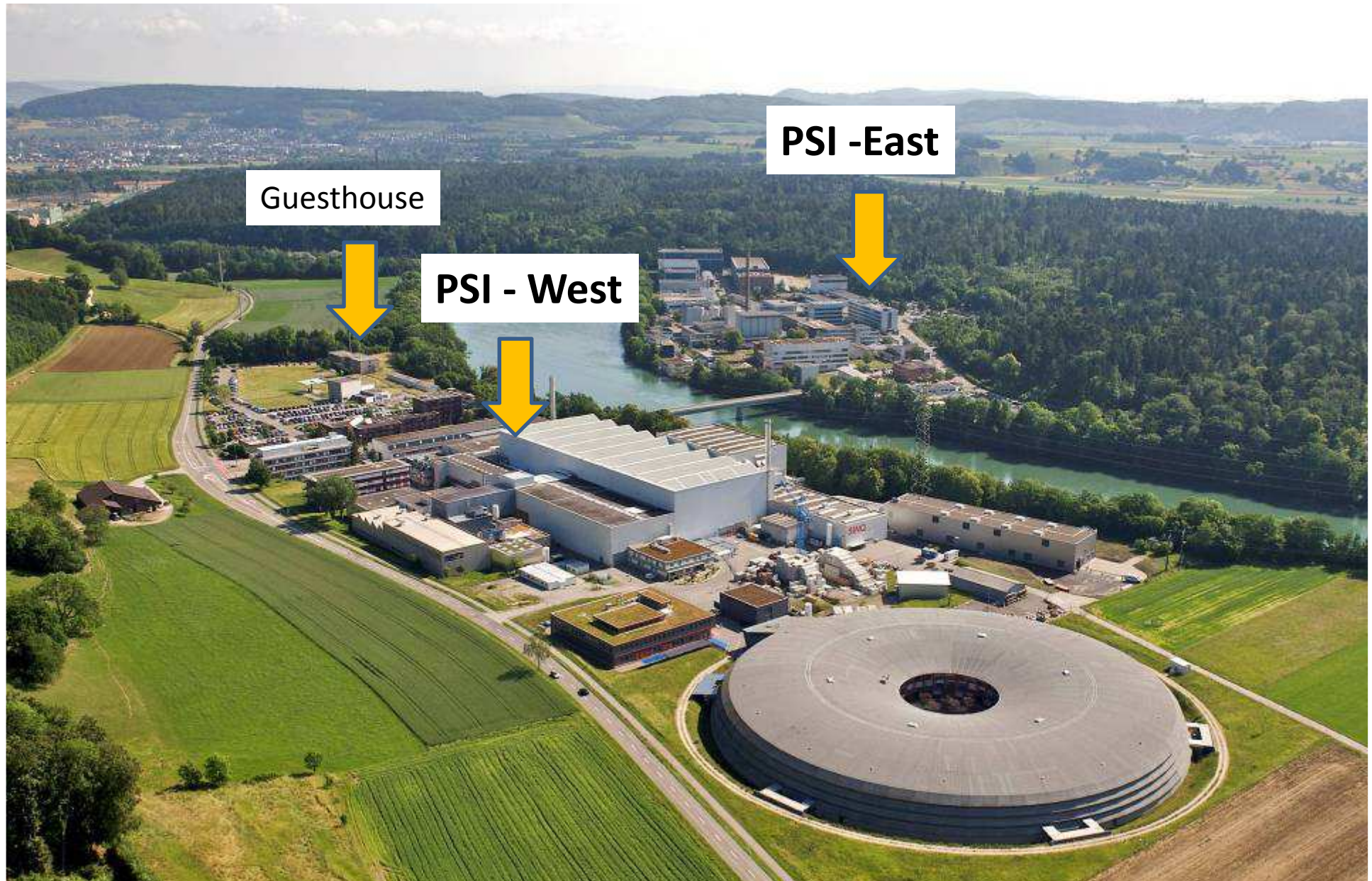
AUNIRA 2015

Advanced Use of Neutron Imaging for Research
and Applications

28.9.-2.10.2015



Welcome @ PSI



Aim and Purpose

- Demonstration of Basics and State-of-the-Art in Neutron Imaging
- Communication between Operators, Users and future Beamline responsables
- Brainstorming on future demands in neutron imaging and new instrumentation
- Improvement of the network among the partners → best usage of facilities, new approaches

AUNIRA Structure

- Lectures and on-site Training
- Basic information on the whole chain from neutron production → beamline → sample manipulation → detector → data handling → final results
- Image processing
- Direct comparison to X-ray studies
- Some social events ...

Participants

- IAEA supported: developing countries 11
- Open call - selected 13
- Inhouse researchers: for the lectures only
- Separated in 2 groups and 6 subgroups for the practical sessions in the afternoon
- We cover 17 countries: Egypt, Pakistan, UK, France, Russia, Brazil, Bangladesh, Czech Rep., China, India, Indonesia, Sweden, D, Norway, South-Korea, Malaysia, CH

Short Oral Presentations

			short presentation	
Schroefl	Christof	Mo	1	
Marin	Julio	Mo	2	
Park	Su Ji	Mo	3	
Ray	Nirmal	Mo	4	
Saha	Sudipta	Mo	5	
Asghar	Zahid	Tue	1	
Boukerdja	Layachi	Tue	2	
Akbar	Fahrurrozi	Tue	3	
Abd El-bar	Waleed	Tue	4	
Williams	Alan	Tue	5	
Le Conte	Sandie	Wed	1	
Boutin	Henri	Wed	2	
Satpayev	Damir	Wed	3	
Dudak	Jan	Wed	4	
Fitzgerald	David	Wed	5	
Jacot-Guillarmod	Mathieu	Thu	1	
Minniti	Triestino	Thu	2	
Schiebel	Korbinian	Thu	3	
Zhang	Peng	Thu	4	
Sainudeen Nazer	Nazia	Fr	1	
Schoueri	Roberto	Fr	2	
Yazid	Khairiah	Fr	3	
Lukin	Evgeny	Fr	4	

Each morning
5 Persons
3 Slides
3 Minutes/each

Programme

Timetable	Mo 28. Sept.	Di 29. Sept.	Mi 30. Sept.	Do. 1. Oct.	Fr. 2. Oct
08:00	Registration				
8:30 - 9:00	(0) Opening & Intro	Repetition & Quests	Repetition & Quests	Repetition & Quests	Repetition & Quests
9:00 - 10:00	Lecture 1	Lecture 4	Lecture 7	Lecture 10	Lecture 13
10:00 - 10:30	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break
10:30 - 11:300	Lecture 2	Lecture 5	Lecture 8	Lecture 11	Lecture 14
11:30 - 12:30	Lecture 3	Lecture 6	Lecture 9	Lecture 12	Lecture 15
Lunch Break					
13:30	Experiments	Experiments	Experiments	Experiments	Presentations by the participants
	Exercises	Exercises	Exercises	Exercises	
	in 2 groups	in 2 groups	in 2 groups	in 2 groups	
17:00	16 -18 uhr				CLOSING
	Exkursion to KKL	Winetasting & Dinner			
	Exkursion to KKL	Winetasting & Dinner			
		Winetasting & Dinner			

Programme - Exercises

Exercises				
Group 1	Image Proc. Lab	X at NEUTRA (VP)	Image Proc. Lab	N at NEUTRA (VP)
	pre-measured data	X at ICON (MD)	own data	N at ICON (MD)
	KN/HR/RM	nano-Tomo (BP)	KN/HR/RM	N at BOA (TP)
Group 2	X at NEUTRA (VP)	Image Proc. Lab	N at NEUTRA (VP)	Image Proc. Lab
	X at ICON (MD)	own data	N at ICON (MD)	own data
	nano-Tomo (BP)	KN/HR/RM	N at BOA (TP)	KN/HR/RM

Groups - Subgroups

- ½ participants → Image Processing Lab
- 3 experimental stations: 3 subgroups

Group 1

Abd El-bar

Asghar

Williams

Marin

Group 2

Akbar

Jacot-Guillarmod

Minniti

Fitzgerald

Group 3

Boutin

Lukin

Schoueri

Saha

Group 4

Satpayev

Schiebel

Sainudeen Nazer

Park

Group 5

Boukerdja

Dudak

Zhang

RAY

Group 6

Ridikas

Le Conte

Yazid

Schroefl

NIAG Team (8/2015)

Group Leader

NEUTRA

ICON

Industrial
Applications

PhD students

Projects:

ESS & CCMX



E. Lehmann



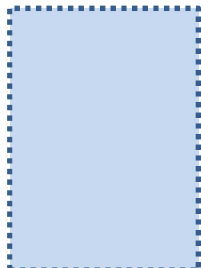
P. Vontobel



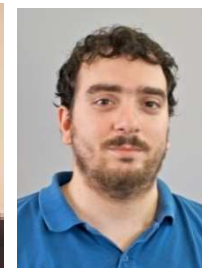
A. Kaestner



C. Grünzweig



M. Raventos



M. Morgano



P. Trtik
80%



J. Hovind



P. Boillat
50%



D. Mannes



B. Betz



R. Harti



F. Schmid
10%



T. Wehmann

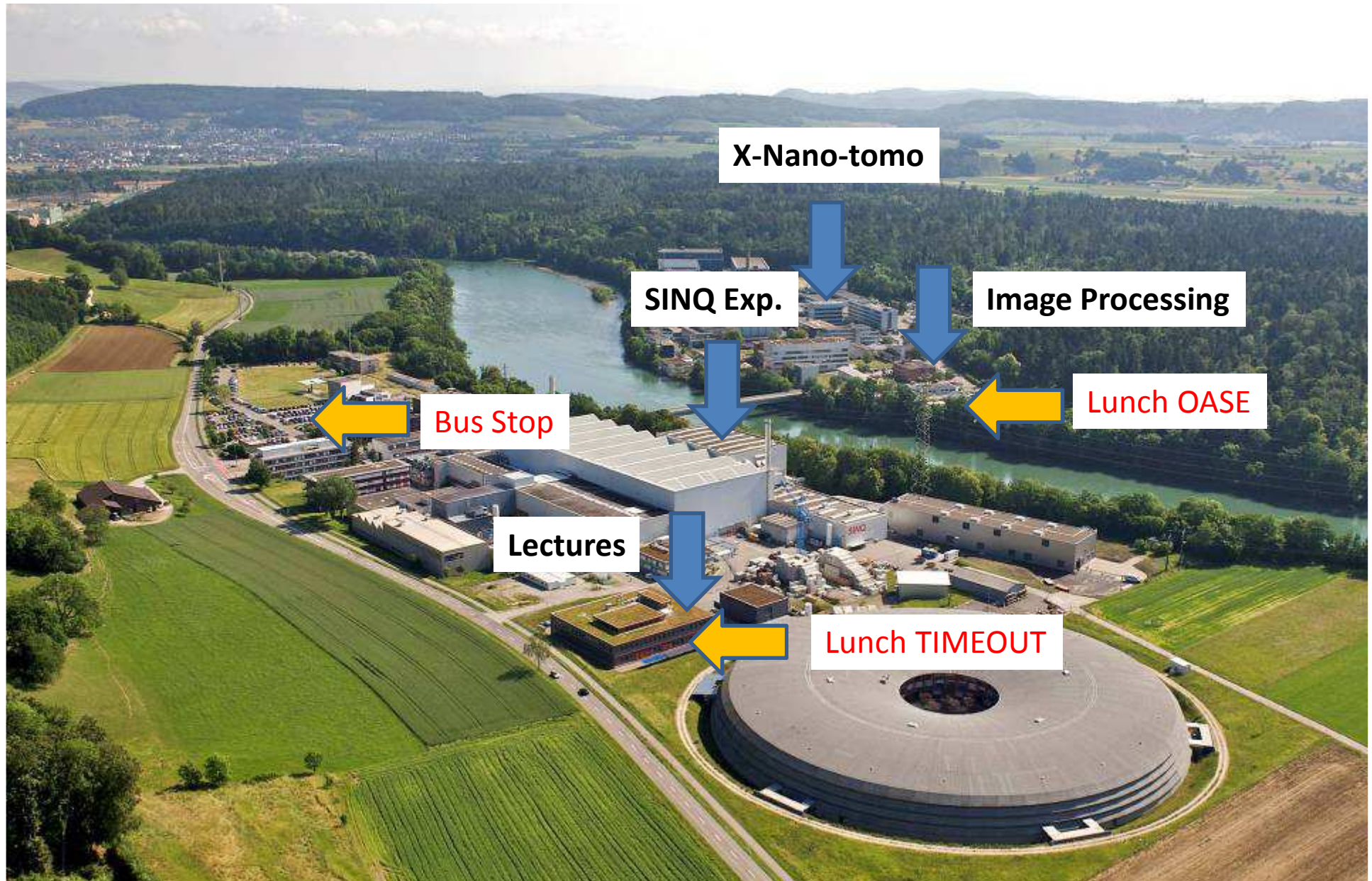
Locations

- Lectures in the morning: WBGB/019
 - Exercises: SINQ-Hall – NEUTRA, ICON, BOA
 - Demonstration: X-nano-Tomo: ODGA
 - Image Processing: OSGA/OG08
-
- Lunch: OASE or TIMEOUT
 - Bus for KKL excursion

Stations + Responsibles

- NEUTRA/XTRA: P. Vontobel, B. Betz
- ICON, mini-XTRA: M. Raventos, Y. Wang
- BOA: P. Trtik, M. Morgano
- Demonstration: X-nano-Tomo: P. Boillat
- Image Processing: A. Kaestner, R. Harti

Locations



Experiments

- YOUR samples are preferred ...
- Test samples from our side are made available
- Data are needed for the image processing training
- Night-shifts can be used for tomo-data acquisition
- Mo. – Tue. Only X-ray experiments possible
- Wed.- Fri. Neutron experiments

Feedback

- 6 presentations (from the subgroup teams) on Friday afternoon, including discussions
- Questionnaire, online from the AUNIRA page
- Proposal: deadline for submission Nov. 15th 2015

Sponsors

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CCMX

Competence Centre for
Materials Science and Technology