



Andreas Pautz, Head of the Nuclear Energy and Safety Division (NES) :: Paul Scherrer Institut

PSI Information Event/Webinar for the ETHZ/EPFL Nuclear Master Students

Paul Scherrer Institut, Villigen, 17-05-2021



Information Event Nuclear Master: Time Table

Time	Торіс	Presenter
13:00-13:15	General Introduction	A. Pautz/ H M. Prasser
13:15-13:35	Introduction	A. Manera
13:35-13:55	AHL – Hot Laboratory	M. Streit
13:55-14:15	LNM – Laboratory for Nuclear Materials	M. Pouchon
14:15-14:35	LEA/ LES – Laboratory for Energy Systems Analysis and Laboratory for Waste Management	V. Dang/ W. Pfingsten
14:35-14:55	LRC – Laboratory for Radiochemistry	P. Grundler/ E. Maugeri/ P. Steinegger/ R. Eichler
14:55-15:25	LRT – Laboratory for Reactor Physics and Thermal Hydraulics + Laboratory for Reactor Physics and System Behavior at EPFL	H. Ferroukhi M. Hursin
15:25-15:40	BREAK	
15:40-16:00	LSM – Scientific Computing and Modelling	K. Mikityuk/ B. Niceno
16:00-16:20	ASI - Department of Radiation Safety and Security	E. Yukihara/ N. Walter
16:20-16:40	ZPT	A. Lomax
16:40-17:00	Concluding discussion	HM. Prasser/ A. Pautz/ P.Kull
17:15	End of the Webinar	



Information Event Nuclear Master: Participants

PSI participants:

Lead: Professor Annalisa Manera /Horst-Michael Prasser/ Professor

Andreas Pautz

Petra Kull (phone +41 56 310 2685/ petra.kull@psi.ch) Administrative support:

Presenters: see agenda

NE-Students:

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Mrs. Lui	Cheuk Lam	chelui@student.ethz.ch
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Mr. Strautmann	Jean	jstrautmann@student.ethz.ch
Mrs. Tong	Yiming	vitong@student.ethz.ch
Mr. Xu	Rui	ruixurui@student.ethz.ch

Professors in the Nuclear Energy and Safety Division and ETH Zurich

- Annalisa Manera as Full Professor for Nuclear Safety and Multiphase Flows (ETH / D-MAVT), and group leader in the Laboratory for Reactor Physics and Thermal Hydraulics (LRT)
 - Annalisa is currently professor at University of Michigan, and will join NES in July 2021



- Patrick Steinegger as Tenure Track Assistant Professor of Radiochemistry, and group leader in the Laboratory for Radiochemistry (LRC) at PSI
 - Patrick is group leader for Superheavy Elements in LRS, and has started his professorship in January 2021



- Prof. Horst-Michael Prasser has retired in January 2021 from ETH Zurich
 - Micha has been professor at ETH, head of the Laboratory of Nuclear Energy Systems at ETH, and head of the Laboratory of Thermal Hydraulics at PSI since 2006.

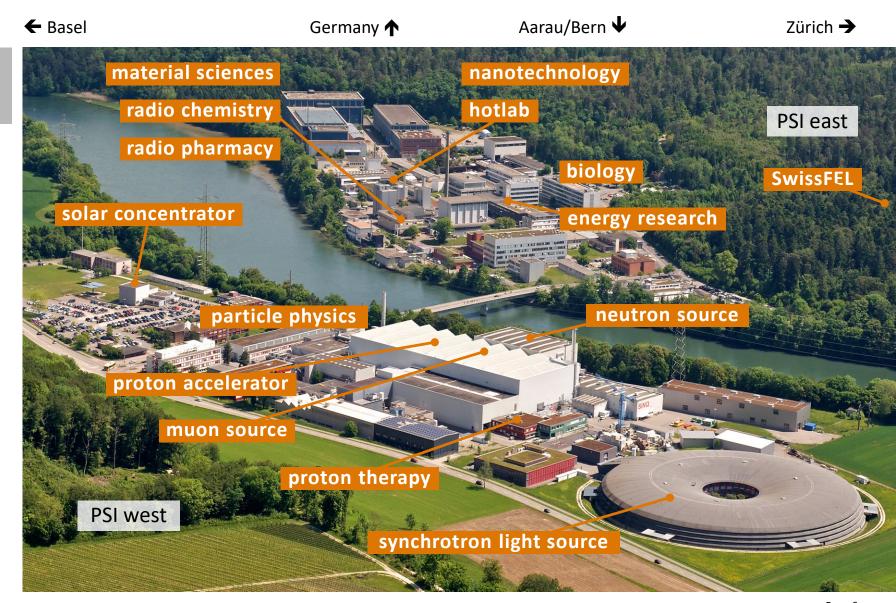




The Paul Scherrer Institute: (Very) brief Overview

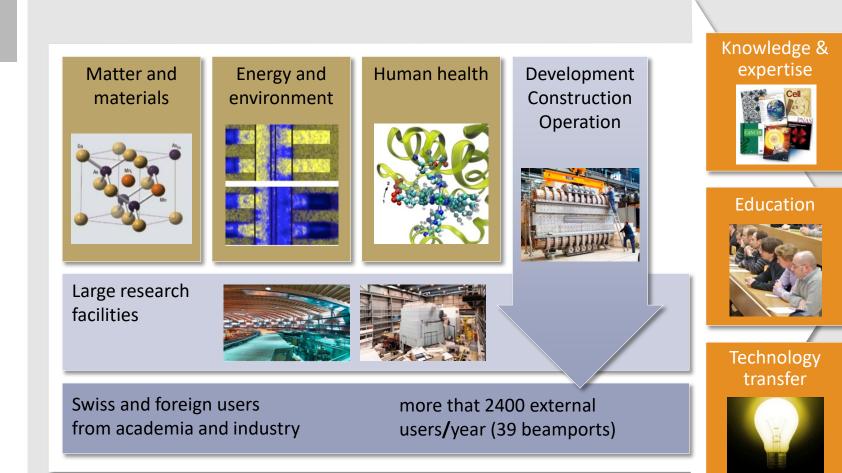


Aerial View of the Paul Scherrer Institut (PSI)





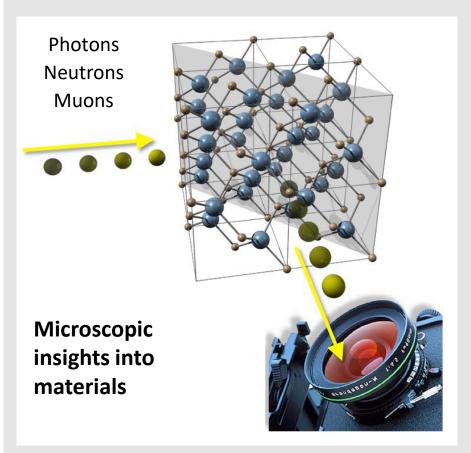
Mission of PSI





Large Research Facilities at PSI

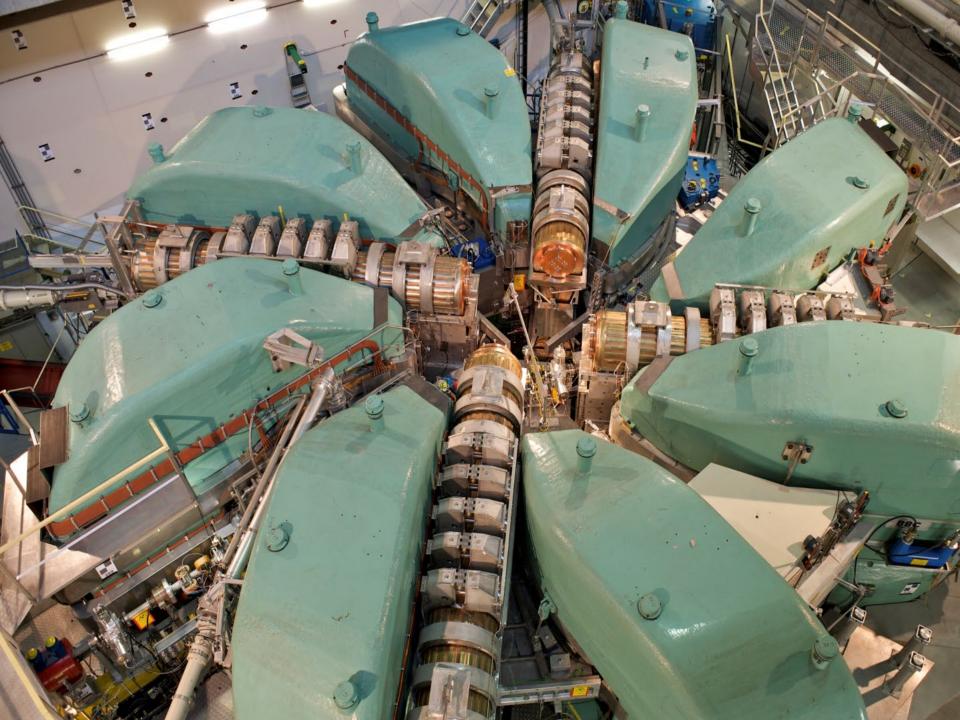
Research at large facilities

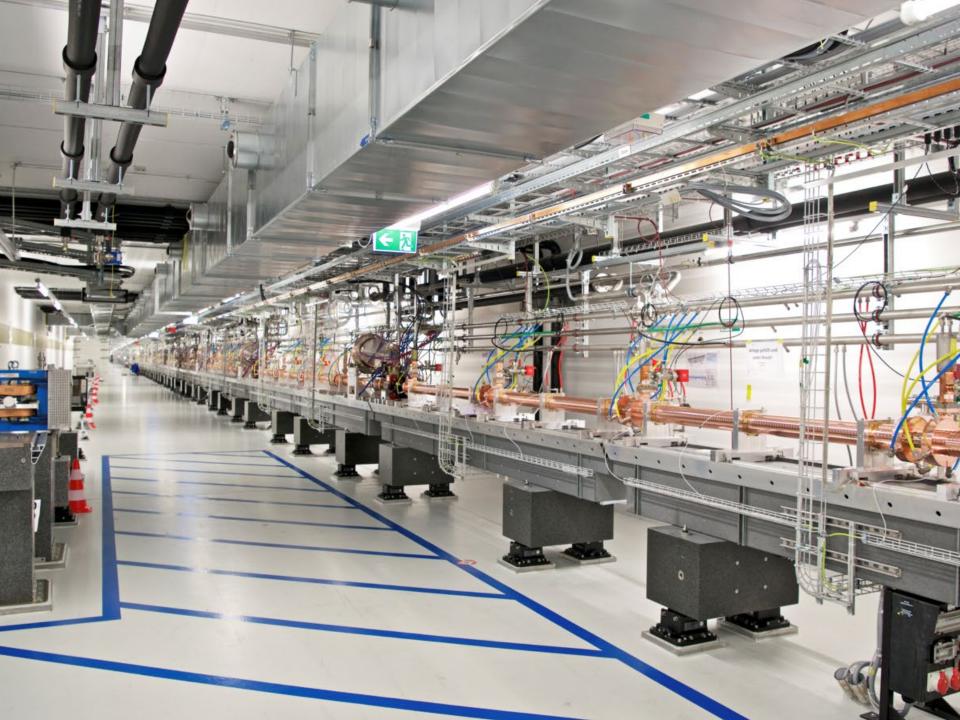


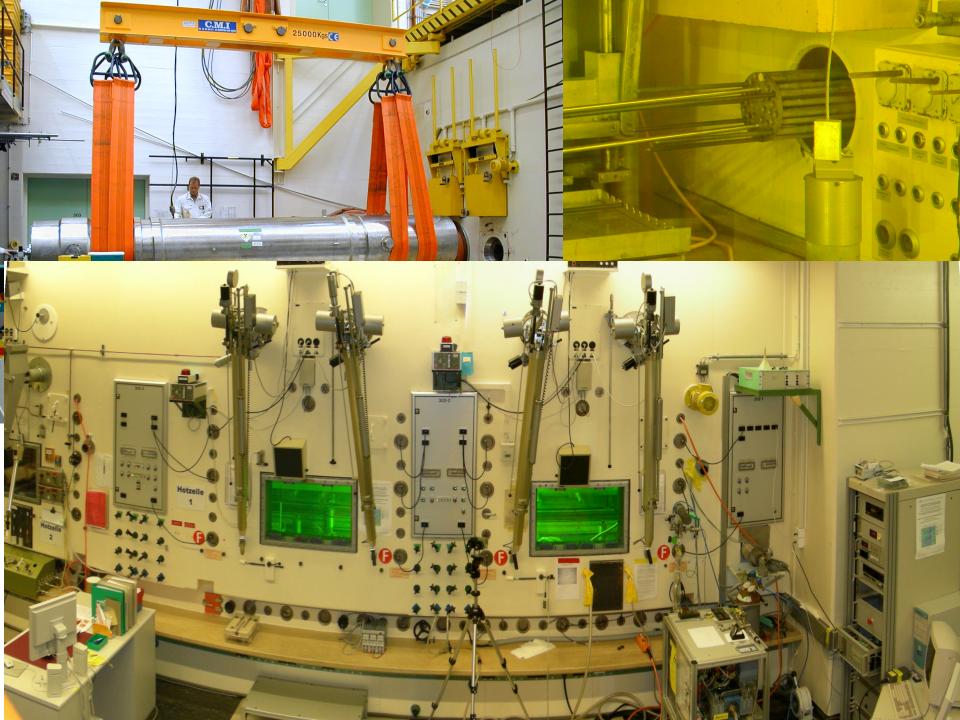
Synchrotron Light Source SLS Spallation Neutron Source SINQ Muon Source SµS







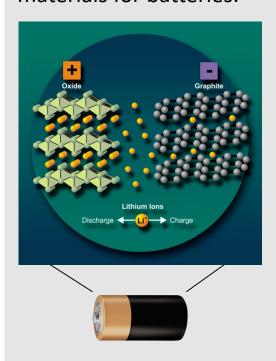




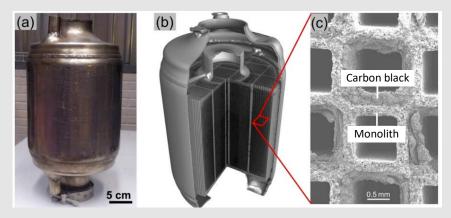


Materials Research

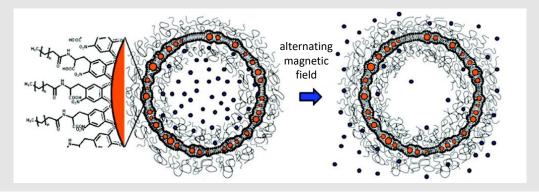
... for **energy** storage: development of new materials for batteries.



... for the **environment**: distribution of soot in particle filters.



... for **human health:** encapsulation of medical agents for targeted drug delivery in the body.



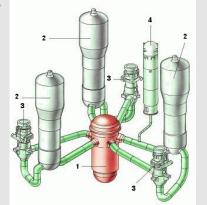


Nuclear Energy research

Nuclear safety

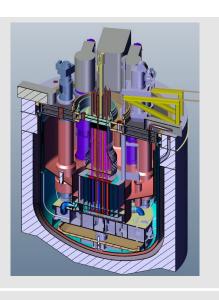
Understanding processes, monitoring materials ageing





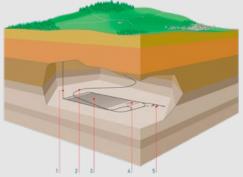
Generation-IV Concepts

Safety and Sustainability of innovative reactor concepts



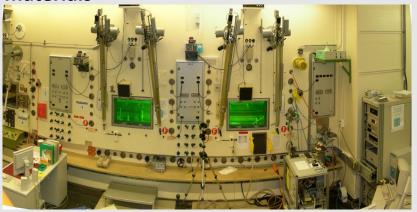
Deep geological disposal

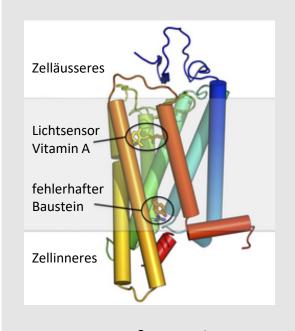




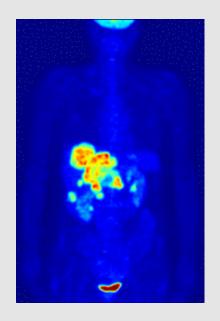
Understanding of interactions radionuclides and rocks/minerals

Hotlabor: investigation of nuclear materials

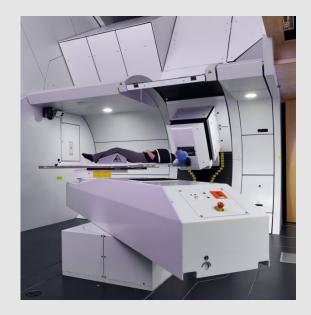




Structure of Proteins For the targeted development of new ddrugs therapy of cancer



Radiopharmaceuticals Proton therapy for the diagnosis and



- Treatment of tumors
- Little damage to surrounding tissues



PSI: Organizational Overview

Research Committee Prof. Dr. Marco Stampanoni
Human Resources Management Karsten Bugmann
Center for Proton Therapy Prof. Dr. Damien Weber

Director:

Prof. Dr. Christian Rüegg

Members of the board of directors:

Prof. Dr. Gabriel Aeppli Dr. Peter Allenspach Prof. Dr. Andreas Pautz Prof. Dr. Leonid Rivkin* Prof. Dr. Gebhard F. X. Schertler

Directorate Support	Dr. Thierry Strässle
Human Resources Management	Karsten Bugmann
Safety	Dr. Werner Roser
Communications	Dagmar Baroke
Science	Dr. Ines Günther-Leopold Dr. Michèle Erat
Finance and Administrative Services	Dr. Frank Behner
Technology Transfer	John Millard
General Information Technology	Dr. Gerd Mann

Research Division

Biology and Chemistry (BIO)

Prof. Dr. Gebhard Schertler

Center for Radiopharmaceutical Sciences Prof. Dr. Roger Schibli

Biomolecular Research Prof. Dr. Michel Steinmetz

Nanoscale Biology Prof. Dr. Michel Steinmetz a.i. Research Division
Research with

Research with Neutrons and Muons (NUM)

Dr. Alex Amato a.i.

Particle Physics Prof. Dr. Klaus Kirch

Neutron Scattering and Imaging Prof. Dr. Michel Kenzelmann

Muon Spin Spectroscopy Dr. Thomas Prokscha a.i.

Neutron and Muon Instrumentation Dr. Marc Janoschek

Multiscale Materials Experiments Prof. Dr. Laura Heyderman Research Division

Nuclear Energy and Safety (NES)

Prof. Dr. Andreas Pautz

Reactor Physics and Thermal Hydraulics Hakim Ferroukhi

Hot Laboratory Dr. Marco Streit

Waste Management Prof. Dr. Sergey Churakov

Nuclear Materials Dr. Manuel Pouchon

Radiochemistry
Dr. Robert Eichler

Scientific Computing and Modelling Dr. Andreas Adelmann a.i. Research Division

Energy and Environment (ENE)

Prof. Dr. Thomas I. Schmidt

Competence Centers and Central Platforms:

Operando Spectroscopy Dr. Maarten Nachtegaal

SCCER Storage Prof. Dr. Thomas J. Schmidt i.P. SCCER Biosweet

Prof. Dr. Oliver Kröcher i.P.

Dr. Peter Jansohn

Bioenergy and Catalysis Prof. Dr. Oliver Kröcher

Electrochemistry Dr. Felix Büchi a.i.

Atmospheric Chemistry Denise Verhoeven i.P. Prof. Dr. Urs Baltensperger

Environmental Chemistry Prof. Dr. Margit Schwikowski

Catalysis and Sustainable Chemistry Prof. Dr. Jeroen van Bokhoven

Energy Systems Analysis Dr. Vinh N. Dang a.i. Research Division

Photon Science (PSD)

Prof. Dr. Gabriel Aeppli

Macromolecules and Bioimaging

Dr. Oliver Bunk

Micro- and Nanotechnology Dr. Yasin Ekinci a.i.

Condensed Matter
Prof. Dr. Frithiof Nolting

Femtochemistry
Prof. Dr. Christoph Bostedt

Advanced Photonics Dr. Luc Patthey

Nonlinear Optics Prof. Dr. Adrian Cavalieri Division

Large Research Facilities (GFA)

Prof. Dr. Mike Seidel

Accelerator Operation and Development PD Dr. Daniela Kiselev a.i.

Electronics and Control Systems Dr. Thomas Schilcher

Engineering and Coordination Kilian Rolli

Accelerator Technologies Dr. Hans-Heinrich Braun Division

Logistics (LOG)

Dr. Peter Allenspach

Finance and Administrative Services Dr. Frank Behner

Buildings and Services Lilian Jakob

Infrastructure and Electrical Installation Markus Jörg

Information Technology
Dr. Gerd Mann

R. Peterhans

Radiation Safety and Security Dr. Sabine Mayer

Communications
Dagmar Baroke

229 NES staff (223 FTE), as of January 2021

149 scientists and technical/administrative staff – 126 with permanent positions,

49 PhD students. 31 Postdocs

After this event:

- All slides (and recordings), as well as the list of project proposals, will be made available on the ETHZ intranet
- Please feel free to contact the laboratories/sections of PSI in order to inquire about:
 - Possibilities for doing your semester project (8 ECTS in the 3rd semester)
 in one of the units
 - Possibilities for doing your master thesis project (30 ECTS in the 4th semester)
 - Semester and master project do not have to be necessarily in the same unit

 We wish you a successful completion of your 2nd semester at ETH, an interesting internship, and look forward to seeing you at PSI in October



Wir schaffen Wissen – heute für morgen

