



Accelerator Focus @ Physics

Program 10.30-12.00

10:30 Welcome, intro, idea, last meeting, Sverker

10:40 Kristina Eriksson Stenström

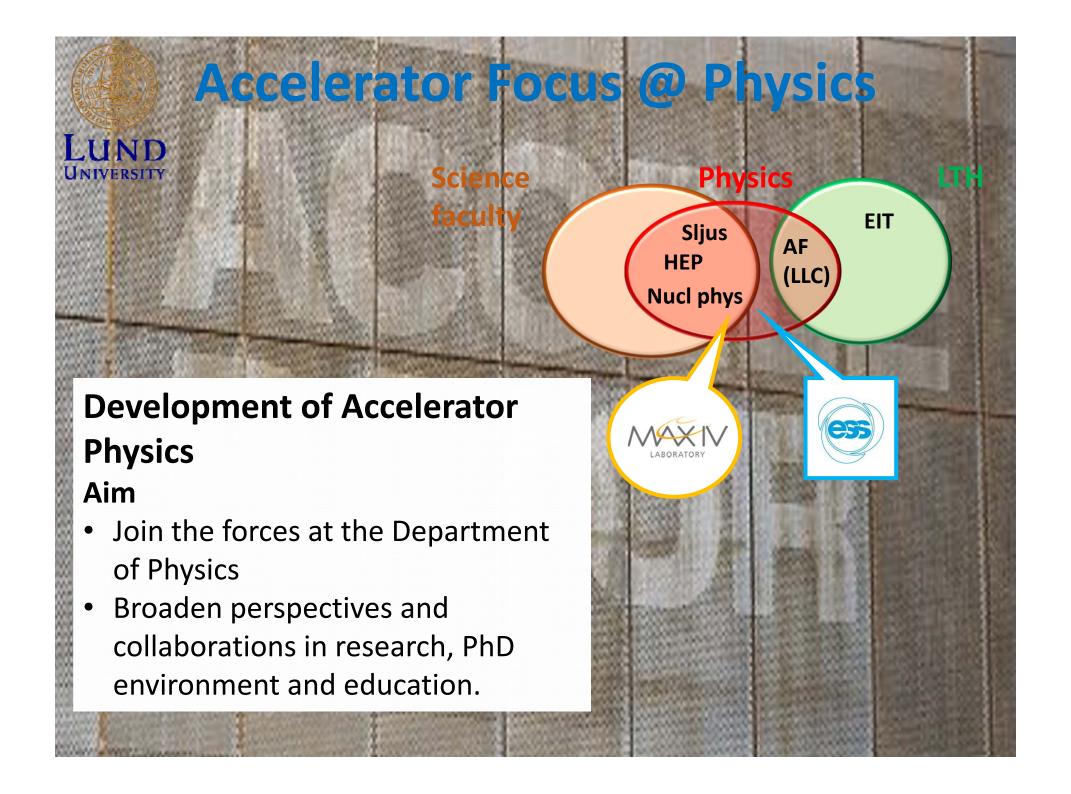
10:55 Courses and teaching, Sverker

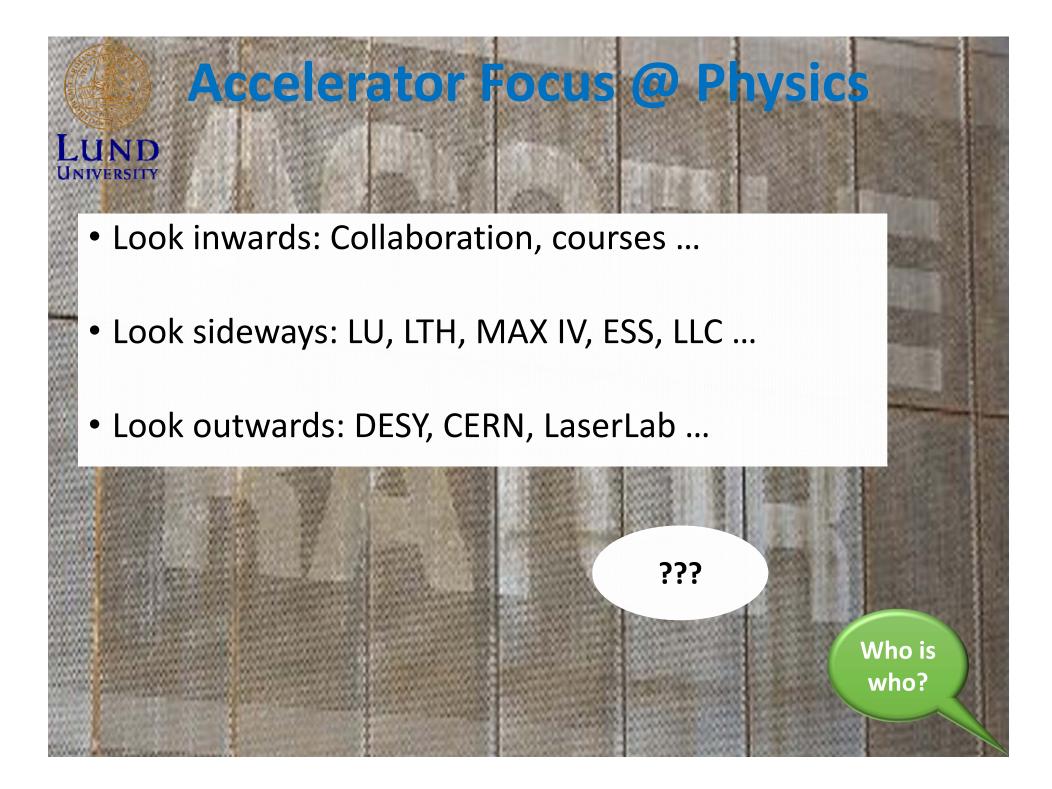
11:10 Discussion - how to take another step?

- Center ideas
- Accelerators v. using accelerators
- Common project
- Closer involve the labs (ESS, MAX IV)

11:30 Develop a research school proposal? Francesca

11:45 → 12:00 Sum up





Minutes from the Accelerator focus for Physics

 Anders presented his LCAD (Lund Center for Accelerator Development). Anders sent the material around for more discussion next time.

Education

- Information on courses, collect the information. (Sverker)
- Things missing: Plasma physics, control systems, vacuum
- Graduate schools, Research schools
- Importance of computing, big data sets (Compute graduate school)
- We discussed joining LTH fairs and Lunch seminars. Need involvement with ESS and MAX IV.

Minutes from the Accelerator focus for Physics

Action points from last meeting still to do:

- We should collect names and contacts for all PhD students among us.
- A homepage

Topics still around:

- Graduate school. Compare the ERASMUS project MAXLAS 10 y ago run by Anne L'Huillier.
- PhD courses in common in areas such as Diagnostics.
- Seminar series on Accelerators (compare MAX ESS seminars)





Courses and teaching

-	0	SPANNERS THE PARTY METERS	U		_	G.	П	EDUCACIONES SE NORM	J	K		I∀I	14
Courses at Physics													
with content on accelerators													
2020													
1	20												
										ESS MAX IV			
Code	l Code LT	H Name	hp	Period	level	Accelerator physics content	lab	Projects	visit	connection	textbook	Course responsible	Division
MAXN	07 -	Introduction to Accelerators and Free Electron Lasers	7.5	ht1	advanced	Accelerator types (linac, cyclotrons, synchrotrons, microtrons) Beam optics Magnets, cavities Diagnostics Synchrotron radiation FEL Radiation protection Applications		Simulations	MAX IV, SUS cyclotron, SUS oncology	Taught at MAX IV	Accelerator Technique, S. Werin (kompendium)	Sverker Werin	Sljus
MAXC	11 EXTF90	Photon and Neutron Production for Science	7.5	ht1	basic	Different accelerator types, production of photons and neutron by accelerators	-	Presentation about accelerator/beamline /instrument		_	Accelerator Technique, S. Werin (kompendium), articles, CAS notes	Francesca Curbis	Sljus
MAXN		Accelerators and Free Electron Lasers	7.5	vt1	advanced	Beam dynamics Longitudinal motion Simulation of accelerators Instabilities FEL dynamics Seeding Coherence enhancement	MAX IV storage rings	Simulations	MAX IV tunnels	Taught at MAX IV Lecture by MAX IV	K. Wille, The physics of Particle Accelerators (Oxf. Univ. Press) Simon Baird, Accelerators for pedestrians (CERN note) P. Schmüser et al, Free- Electron Lasers in the Ultraviolet and X-ray Regime (Springer)(LUB)	Francesca Curbis	Sljus
FYSC1													
FAFF1													
1 FYSN1 2 FKFN2													
3 FKFN2													
4 FYST1													
MNXB	01												
6													
7	TOWNS.	C. CO. W. C. Co.	1000	90000	NAME OF THE PERSON	NAME OF TAXABLE PARTY.	UURO E NUUVO	000000000000000000000000000000000000000	PERMINE	TOTAL CONTROL	LOUIS CONTRACTOR DE LO CO	Name and Address of the Owner, where the Owner, which is the Owner, where the Owner, which is the Owner, which i	No. of Parts

Courses and teaching

Collect information

- Accelerator physics a little in many courses
- V.
- Complete courses
- All students an introduction course on BA level
- Advanced course on M-level
- MAX IV ESS
- CERN
- Atomic physics (laser acc)



