



JYFL-ACCLAB
Accelerator Laboratory, Department of Physics
University of Jyväskylä , Finland

STATUS of JYFL-ACCLAB

- ❑ Part of the Department of Physics of JyU
- ❑ One of the prime technology forums of JyU.
- ❑ International infrastructure in Finland - Roadmap 2014-2020
- ❑ Renewed status in Finland:
Research Center of Excellence 2012-2017
- ❑ Renewed FiDiPro- contract: Jacek Dobaczewski
- ❑ Accredited European Space Agency (ESA) test facility



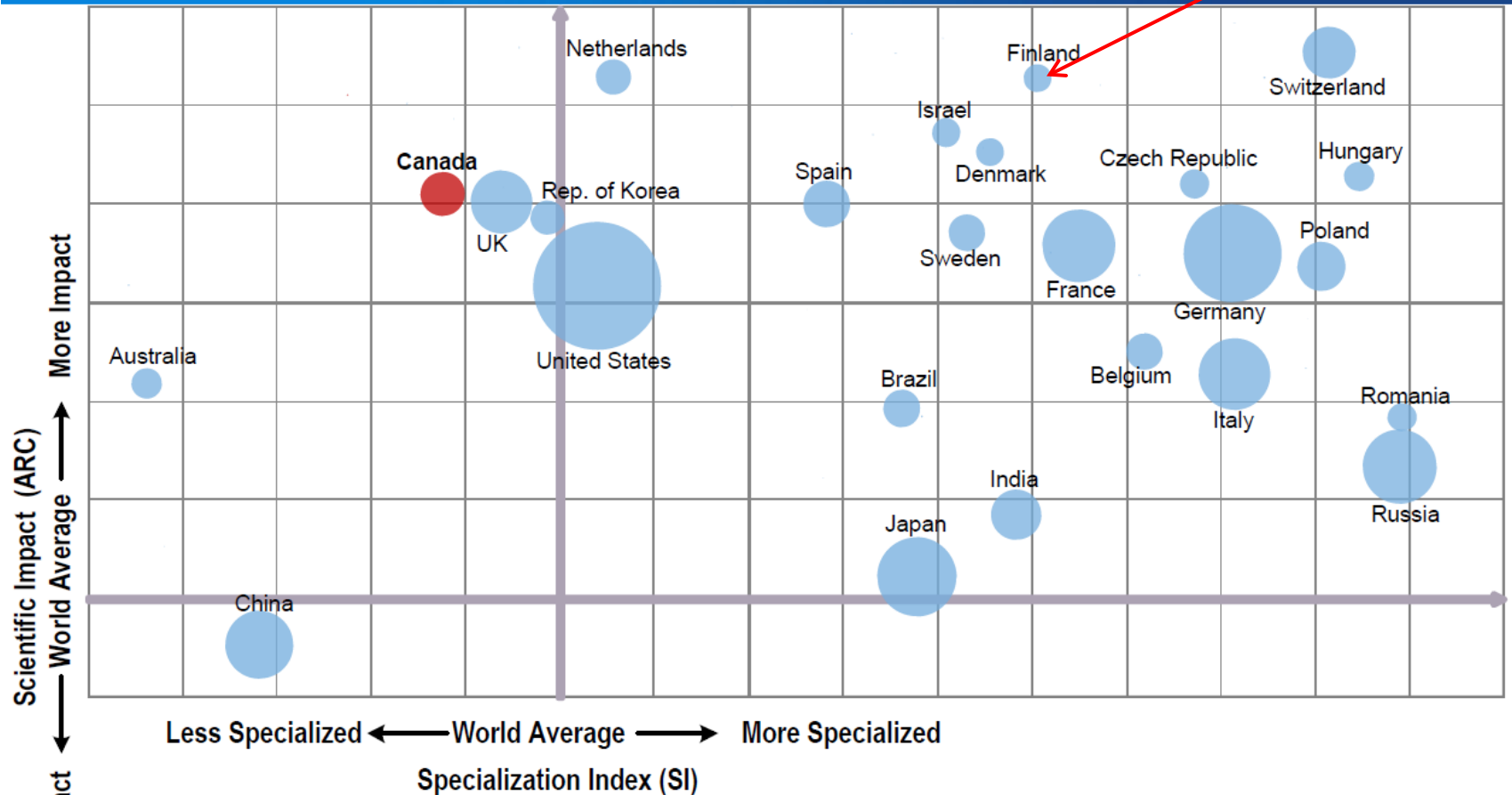
Bibliometric Study of TRIUMF's Scientific Output

Presentation to: TRIUMF | August 21, 2013



Positional Analysis in Nuclear Physics – Countries

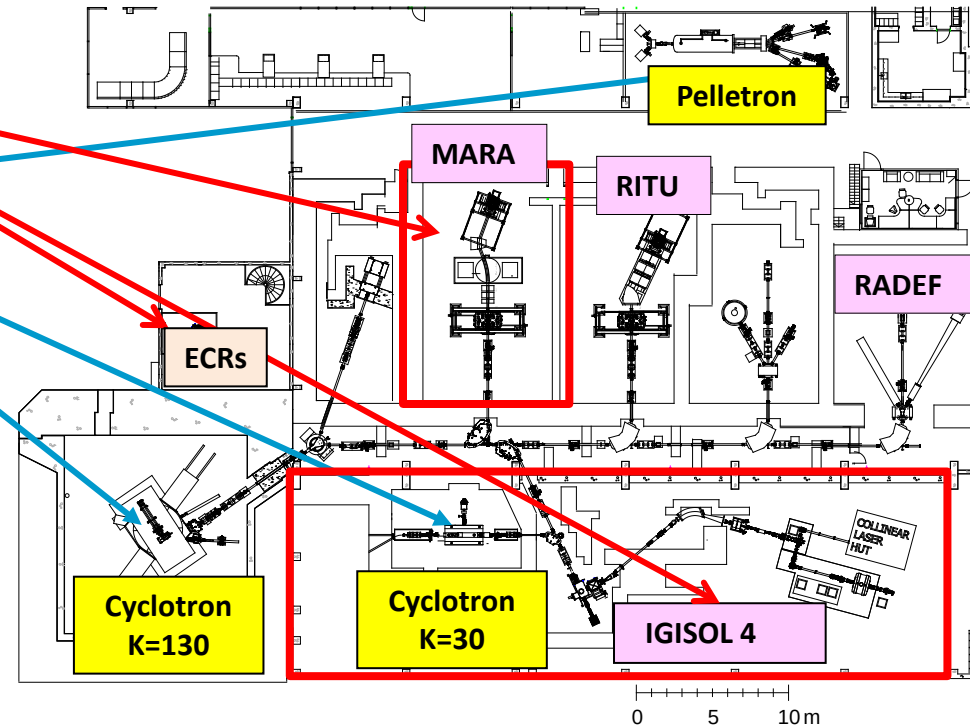
Average of relative citations (ARC)



$$SI = \frac{\% \text{ of an entity's papers in Subatomic Sciences}}{\% \text{ of world papers in Subatomic Sciences}}$$

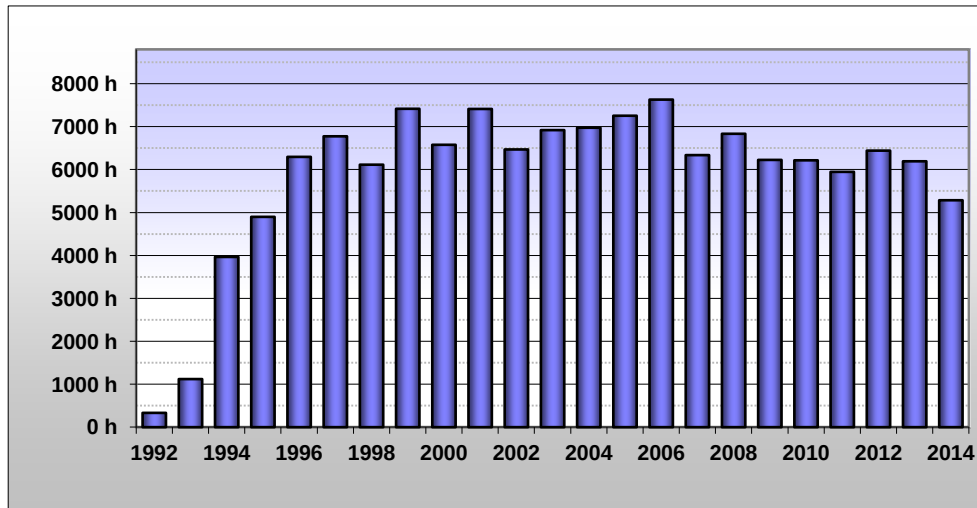
Upgrade of the JYFL-ACCLAB still going on

- new instrumentation
 - three accelerators
- more beam time for difficult experiments, tests and new applications



New 18 GHz ECR for K130, funded for 2014-2015
RADIS source for MCC30 under construction

More than 6000 beam time hours a year



***K=130MeV
Cyclotron***

Run time as of 27.10.2014 at 09:45 is 135 615 hours.
The average per year (after 1.1.1996) is 6 658 hours.



- Includes ~1000 hours of commercial use.
- K30 Cyclotron in parallel use for experiments from Summer 2013.

JYFL-PAC Membership

- Wolfram Korten, DSM/IRFU/SPhN France (Chair)
- Gerda Neyens, KU Leuven , Belgium
- Thomas Nilsson, Chalmers University of Technology Sweden
- Marek Pfützner, University of Warsaw Poland
- Philip M. Walker, University of Surrey, UK
- Dario Vretenar, University of Zagreb, Croatia

Membership for 3 years, chair for 1.5 years.

Half of PAC changed at any one time.

Invited on basis of expertise in JYFL science areas.

JYFL-PAC Procedures

- Two calls per year with deadlines 15th March and 15th September.
- No presentations, but contact with PI by email/phone, if needed.
- Judged on: scientific excellence after verifying the feasibility and suitability of the proposal to JYFL facilities.
- Each PAC members scores each proposal: 3=MUST, 2=SHOULD, 1=COULD, 0=DON'T ... ½ marks allowed.
- List of proposals ranked by average score considered carefully at end of meeting to determine appropriate cut off.
- No separate users-selection panel.

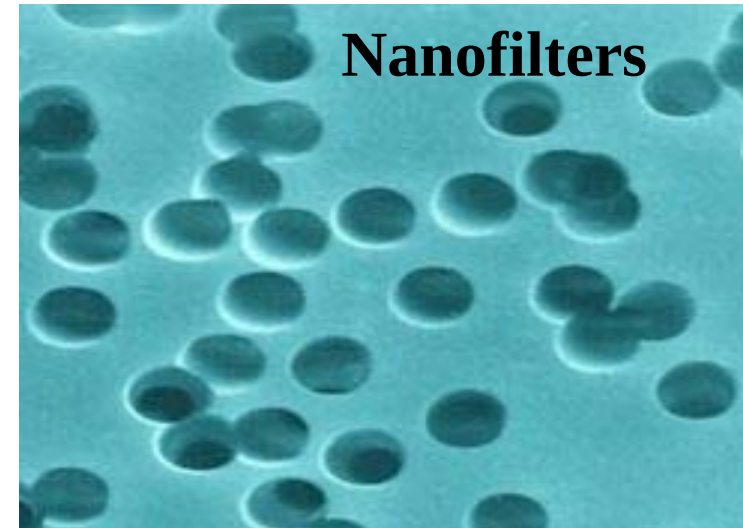
JYFL-PAC Statistics

- Average of 34.3 proposals per year asking for total of 284 days/year over 2006-2014.
 - Lower numbers recently (25 in 2012; 26 in 2013, 32 in 2014), obviously due to the IGISOL reconstruction and associated larger than normal backlog (390 days)
- Average success rate of 70.4 % in beam days, not a fixed proportion.
- Requests distributed:
 - 42% Spectroscopy (RITU, JUROGAM, SAGE, LISA, DPUNS)
 - 30% Ground-state properties (IGISOL, Traps, Lasers)
 - 12% Nuclear Reactions
 - 16% Applications (not including commercial services)

Experiments

- 64 supported experiments (50)
- 3851 supported hours (3000)
- 405 supported users (200)
- 3876 supported visitor days (2000)

Industrial applications (RADEF)



JYFL-ACCLAB - RADEF accredited ESA test site

❑ Income of > 700.000 € a year



→ Commercial Services at JYFL-ACCLAB:
Winner of the National Academic Entrepreneurship Competition 2011

Equipment from other labs

Equipment used, but not specifically built for operation at JYFL:

- EUROBALL Ge detectors: 30 Clovers 18 Phase I plus shields (GAMMAPOOL).
- BELEN neutron detector (Madrid-Valencia).
- TAGS (St. Petersburg).
- DSSD Cube and DAQ (Madrid-Aarhus-Göteborg).
- Silicon ball (ISOLDE).
- LANCER neutron detectors (Rosendorf)
- DEMON neutron detectors (Strasbourg/Brussels/Dubna).

ENSAR

Thank you