Career progression: from academia to industry – personal experience

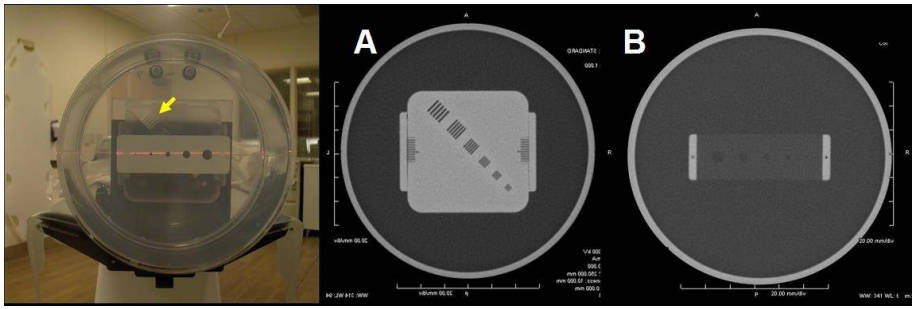
Janusz Harasimowicz, PhD

Elekta Ltd
(former Marie Curie fellow)

ELEKTA

Undergraduate

University of Warsaw
Faculty of Physics, Biomedical Physics Division

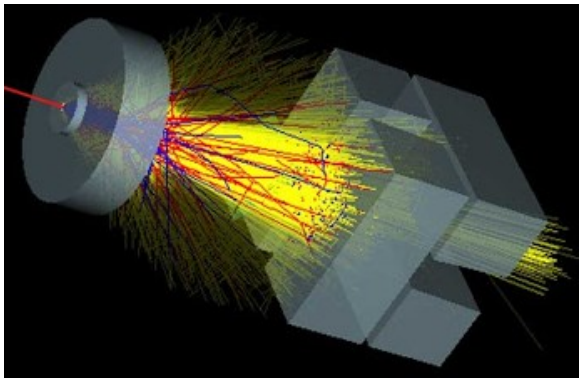


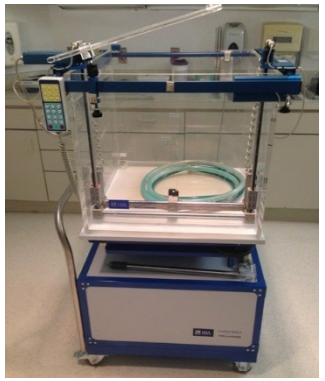
Marie Curie Cancer Centre, Inst. of Oncology

- Computer tomography (CT) quality control undergraduate project

Andrzej Sołtan Institute for Nuclear Studies

- R&D for medical and industrial linear accelerators (linacs)



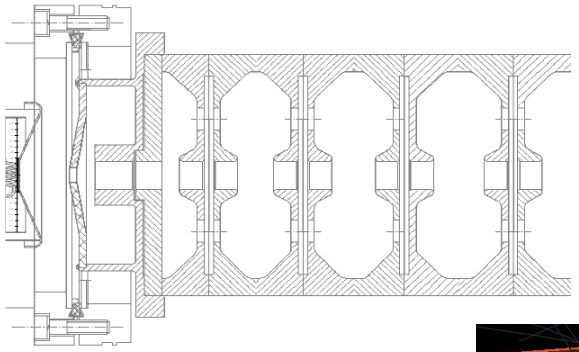


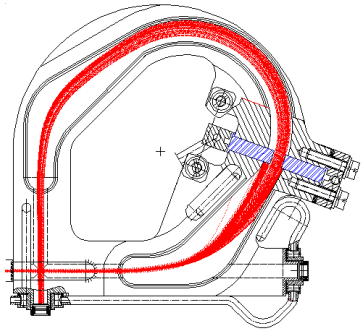
Master's thesis:
Derivation of a medical accelerator electron beam energy spectrum using an inverse Monte Carlo method

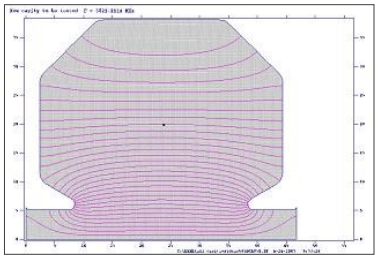
ELEKTA

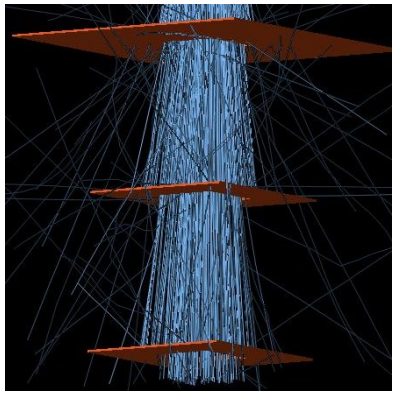
Postgraduate

Andrzej Sołtan Inst. for Nuclear Studies
Establishment for Nuclear Equipment
Świerk, Poland
- R&D physicist
- Physics team leader

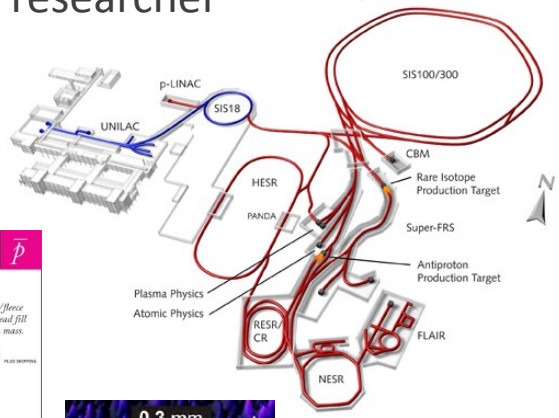


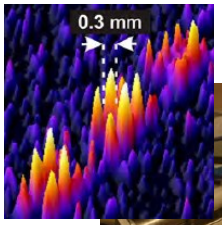


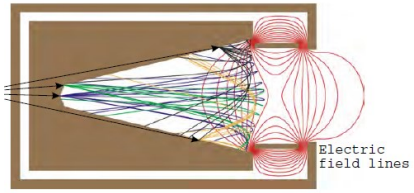


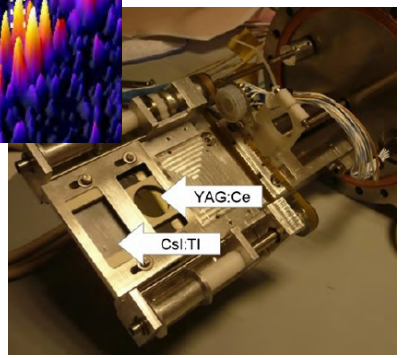


Max Planck Inst. for Nuclear Physics
QUASAR Group
Heidelberg, Germany
- Post-grad. researcher









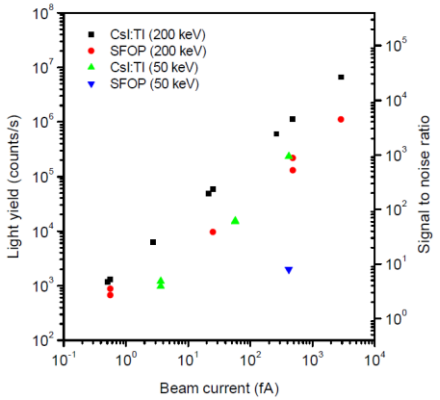
ELEKTA

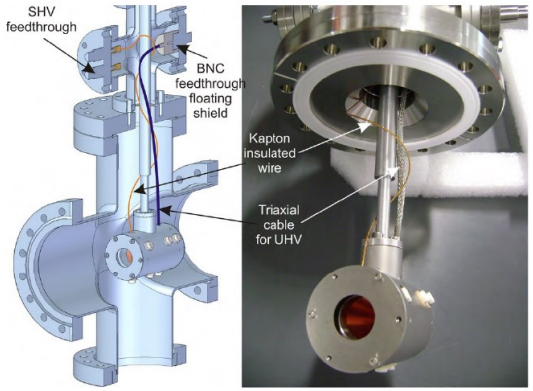
DITANET Marie Curie fellow

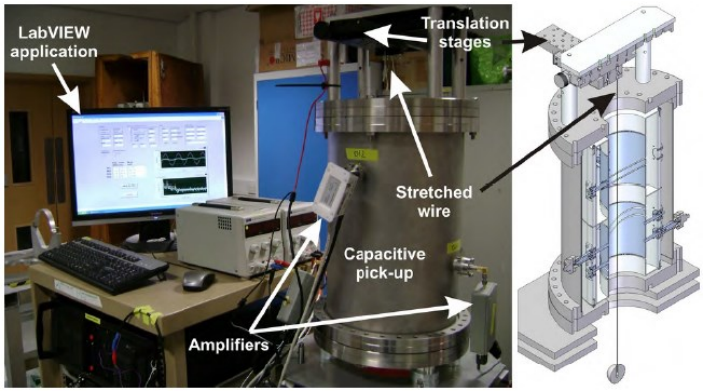
University of Liverpool + Cockcroft Institute of Accelerator Science and Technology

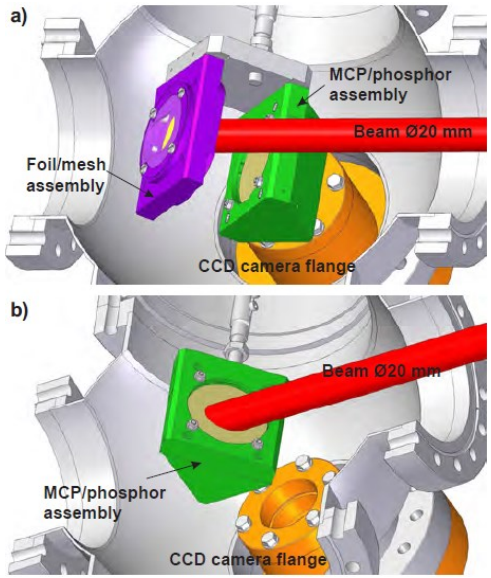
Liverpool / Daresbury, UK

- Project: Design, Construction and Tests of a Full Set of Diagnostics for Future Low-energy Storage Rings







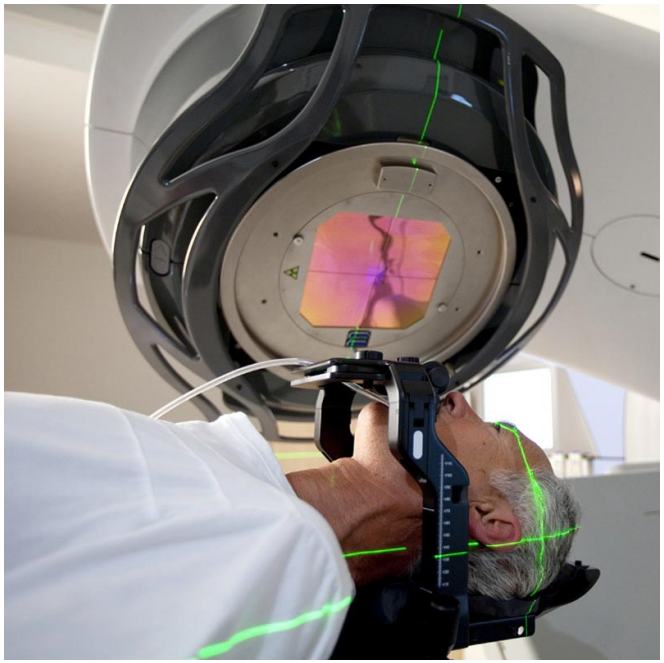


PhD thesis:

Development of instrumentation for low energy beams

Elekta

Elekta is a human care company pioneering significant innovations and clinical solutions for treating cancer and brain disorders.



The company develops state-of-the-art tools and treatment planning systems for radiation therapy, including brachytherapy and radiosurgery, as well as workflow enhancing software systems across the spectrum of cancer care.

ELEKTA

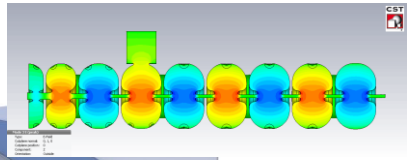
My background allowed me to:

directly apply my specialised physics skills

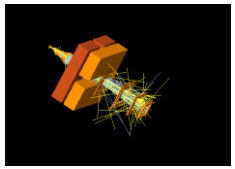
work independently and within a team, plan tasks and manage my own time

operate comfortably in a multi-disciplinary, international environment

Accelerator Physics, RF Physics, Beam Dynamics



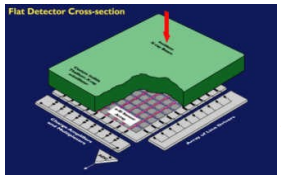
Radiation Physics & Beam Modelling



Imaging Physics

deliver high-quality work (used to critical peer reviews)

Medical Physics



Detector Physics

identify with the process of innovative concept development

…but I still had to develop/gain:

- Specific knowledge of machine technology and applications
- Understanding of a large commercial organisation
- Awareness of internal processes and industry regulations
- Understanding of business needs and priorities
- Flexibility in work direction
- Ability to work under pressure and to tight deadlines
- Specific communication and presentation skills for external partners, customers and competition
- *And as my career progressed, also…*
  - Leadership skills
  - People management skills
  - Systems engineering knowledge

My career development within Elekta

→ Physicist

- Beam Generation physics work for the MR Linac project
- Beam Shaping physics work for the MR Linac project
- Machine & Patient QA physics work for the MR Linac project

→ Senior Physicist

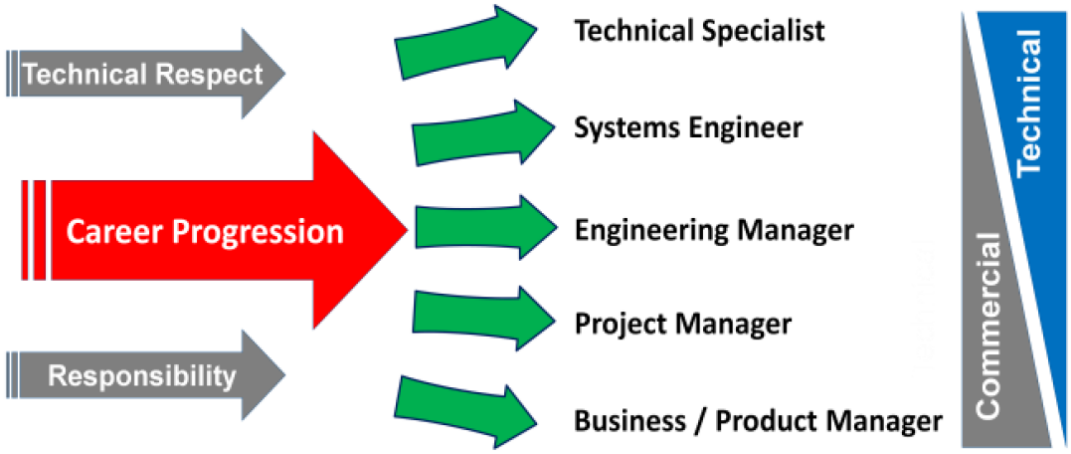
- Physics Lead on the Beam Generation and Machine & Patient QA modules
- System Integration Team member
- Module Lead on the Machine & Patient QA module
- Product Owner on the Systems Engineering team within the Scaled Agile Framework (SAFe)

Elekta technical careers

R&D

Regulatory

Quality



Service

Product Management

Manufacturing

Business Management