
Rajmund Mokso

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Profile

Specialist in X-ray physics with emphasis on the enhancement of X-ray imaging methods for biology and material science applications.

Education

2003 – 2006 UNIVERSITY JOSEPH FOURIER IN GRENOBLE, FRANCE

Doctor of Philosophy in Physics, Material Physics and Nanostructures - Development and applications of coherent imaging with improved temporal and spatial resolution

2001 – 2003 FACULTY OF BIOMEDICAL ENGINEERING AT CZECH TECHNICAL UNIVERSITY IN PRAGUE

Involved in PhD study program - Development of X-ray computerized tomographic methods for the study of Osteoporosis

1995 – 2001 FACULTY OF NUCLEAR SCIENCES AND PHYSICAL ENGINEERING AT CZECH TECHNICAL UNIVERSITY IN PRAGUE

Master of Engineering, Applied Physics/Physical Electronics - Modelling and Interpretation of fine X-ray spectra from laser produced plasmas

Work experience

9/2015 – Scientist / MedMAX project leader, LUND UNIVERSITY, LUND, SWEDEN.
MaxIV Laboratory.

6/2009 – 8/2015 Beamline Scientist, PAUL SCHERRER INSTITUT, VILLEN, SWITZERLAND.
Swiss Light Source: X-ray imaging methods and applications

6/2008 – 6/2009 Premier assistant, CIBM, EPFL LAUSANNE, LAUSANNE, SWITZERLAND.
Department of Radiology: development of fast X-ray imaging

8/2007 – 6/2008 PostDoctor, DEPARTMENT OF CHEMISTRY, UNIVERSITY OF OSLO, OSLO, NORWAY.
Quantum chemistry: structure and dynamics

5/2003 – 6/2006 Research fellow, EUROPEAN SYNCHROTRON RADIATION FACILITY, GRENOBLE, FRANCE.
X-ray imaging group - tomography.

Areas of Research/Expertise

X-RAY IMAGING INSTRUMENTATION: Design and development of synchrotron based X-ray tomographic imaging instrumentation. With special emphasis on time-resolved imaging.

BIO-IMAGING: Implementation of new approaches to enable micrometer resolution in vivo X-ray imaging in three dimensions.

PHASE SENSITIVITY: Contribution to wave-optics description of partially coherent X-ray imaging systems and interpretation of phase effects to enhance contrast.