



## **Robert Feidenhans' l**

European XFEL, Germany

### **European XFEL – New Opportunities for X-ray Science**

The European X-ray Free Electron Laser is the brightest X-ray free electron in the world due to its superconducting accelerator that allows the delivery of up to 27000 intense, ultrashort pulses per second. The accelerator started commissioning end 2016. First lasing at hard x-ray energies was observed in May 2017 and the photon systems started commissioning mid-2017. The facility went into operation July 1, 2017. First user experiments were started September 14, 2017.

It is the world's first hard X-ray laser facility based on superconducting accelerator technology and will deliver an unprecedented X-ray beam to the user community. The first two instruments open for user experiments are the FXE instrument for ultra-fast x-ray spectroscopy and x-ray scattering and on the SPB/SFX instrument for diffractive imaging and structural determination for single particles, clusters and biomolecules. In 2018/2019 four more instruments will be taken into operation covering a wide range of scientific fields. In the talk a description of the facility will be given including a report of the status of the operation and a glimpse into results from the first experiments.

#### **Biography**

Robert Feidenhans' l received his Master's degree in Physics in 1983 and his PhD in 1986 both from the University of Aarhus. He worked as a staff scientist in the Physics Department at Risø National Laboratory from 1986-2001, where he became Head of the Materials Department also at Risø. In 2005 he became professor at the Niels Bohr Institute at University of Copenhagen, where he was vice institute leader 2007-2012 and Head of the Institute 2012-2017. January 2017 he became Managing Director of the European XFEL in Hamburg. Robert Feidenhans' l has been working in the field of X-ray Synchrotron Radiation and Free Electron Laser nearly all his career and has also been Chairman of Council at the European X-ray Radiation Facility in Grenoble and also at European XFEL.