

## Biographical sketches of principal investigators

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Prof. Dr. Oliver Jäkel

Head of Department  
Medical Physics In Radiation Oncology of DKFZ

Head of Medical Physics at Heidelberg Ion Beam  
Therapy of the University Hospital Heidelberg



### Research topics

- Ion beam radiotherapy
- Image guided and adaptive radiotherapy
- Novel dosimetry concepts

### Education/ Degrees

Accreditation as trainer for continuing studies in Medical Physics by DGMP	2010
Postdoctoral lecture qualification (Habilitation) in Medical Physics	2001
Postgraduate studies in Medical physics at the DKFZ	1994-1996
PhD in Theoretical physics at the University Erlangen; Germany	1994
Diploma in Experimental physics, University Erlangen; Germany	1990

### Previous appointments

Head of the Department "Medical Physics in Radiation Oncology" DKFZ, Heidelberg	2014
Full Professor for Medical Physics at the Medical Faculty of the University Heidelberg	2010
Medical Physics Director of the Heidelberg Ion beam Therapy Facility	2007 – today
Leader of the research group "Heavy Ion Therapy", at DKFZ	1998-2013
Postdoc at the German Cancer Research Center (DKFZ), Dep. Medical Physics	1994-2010
Research assistant at the University Erlangen, Germany	1991-1994

### Selected peer-reviewed publications (in chronological order)

1. Jäkel O, Smith AR, Orton CG: The more important heavy charged particle radiotherapy of the future is more likely to be with heavy ions rather than protons. *Med Phys.* 2013 Sep;40(9)
2. Cabal GA, Jäkel O: Dynamic Target Definition: a novel approach for PTV definition in ion beam therapy. *Radiother Oncol.* 2013 May;107(2):227-33.
3. J.Telsemeyer, O.Jäkel, M. Martišíková: Quantitative carbon ion beam radiography and tomography with a flat-panel detector. *Phys. Med. Biol.* (2012) 57: 7957–71.
4. Jäkel O, Karger CP, Debus J: The Future of Heavy Ion Radiotherapy, *Med Phys* 35, 2008: 5653-63.
5. Rank CM, Hünemohr N, Nagel AM, Röthke MC, Jäkel O, Greilich S: MRI-based simulation of treatment plans for ion radiotherapy in the brain region. *Radiother Oncol.* 109, 2013: 414-8.

### Activities in the scientific community

Member of European Society for Therapeutic Radiation Oncology (ESTRO)

Member of the German Society of Medical Physics (DGMP)

Member of German Physical Society (DPG)

Member of the Editorial Board of Physics in Medicine and Biology since 2012

Member of the Editorial Board of the Medical Physics Journal 2009-2001

Member of the Educational Committee of PTCOG

Course director of the post graduate study course in Medical Physics at University Heidelberg since 2013

Course director of the Online Master Course “Advanced Physical Methods for Radiation Therapy” at the Medical Faculty of the University Heidelberg since 2011

### **Honors and Awards**

Appointment of a professorship for Medical Physics at the Technical University Vienna (Declined) 2013