

## CURRICULUM VITAE—NIELS OBERS

### PERSONAL DATA

**Date and place of birth:** March 22, 1966, Nijmegen, Netherlands.

**Position** (Jan. 2012-): Professor, Niels Bohr Institute, University of Copenhagen

Sep. 2012-: Deputy Head of Department (Research)

### EDUCATION and EMPLOYMENT

**Masters in physics (Drs.)** University of Nijmegen, Netherlands, Jul. 1987

**Graduate studies in physics (PhD)**, University of California, Berkeley, USA, May. 1991

**Postdoc**, Physikalisches Institut, University of Bonn, Germany, Sep. 1991- Aug. 1993.

**Postdoc**, Centre Physique Théorique, Ecole Polytechnique, Palaiseau, France, Oct. 1993–Sep. 1996

**CERN-Fellow**, CERN, Geneva, Switzerland, Oct. 1996–Sep. 1998.

**Postdoc RTN-network**, Nordita, Copenhagen, Denmark, Oct. 1998–Jun. 2000.

**Assistant professor**, Spinoza Institute, University of Utrecht, Netherlands, Jul. 2000–Feb. 2002.

**Associate professor**, Theoretical Particle Physics and Cosmology, NBI, Copenhagen, Denmark, Mar. 2002-Dec. 2011

### RESEARCH

**Main fields of research:** Theoretical particle physics, in particular string theory, gravity and gauge theories. Specific interests include black holes in higher-dimensional gravity, gauge/gravity correspondence, supersymmetric gauge theories, thermal field theories, hydrodynamic description of gravity, scattering amplitudes in gauge and string theory. Currently involved in examining the phase structure of black holes in higher dimensional gravity, their applications to the gauge/gravity duality at finite temperature and the dual fluid description, applications of black hole physics to particle and condensed matter physics, field theory structures in string theory amplitudes.

**Publications:** 71 publications in refereed journals and 10 published proceedings; editor of one workshop proceedings. 3 published invited reviews; most recent review ‘Instabilities of black strings and branes’ was selected as Editor’s choice article by Class. Quant. Grav. Invited review for Physics Reports in progress.

**Citations:** approx. 2800 citations, h-index 32 (according to inSPIRE SLAC database)

### FELLOWSHIPS and GRANTS

**5 year FOM “Springplankplaats”** grant (equivalent to FNU Skou grant) in NL (used from 2000-2002)

**EU-grant**, RTN project “Constituents, Fundamental Forces and Symmetries of the Universe” (2004-2008)

**FNU framework grant** “From Quarks to Big Bang” (2005-2007)

**FNU framework grant (PI)** “Fundamental Constituents of the Universe and the Quantum Structure of Spacetime” (2008-2011)

**FNU major project grant** “Black Holes and their Role in Quantum Gravity” (2011-2014)

**FNU project grant** “New Horizons in Particle and Condensed Matter Physics from Black holes” (2013-2016)

### RECENT SCIENTIFIC-ADMINISTRATIVE RESPONSIBILITIES

**Head of Group**, Theoretical Particle Physics and Cosmology, NBI (July 2007-August 2012)

**NBI coordinator** of DFG Internationale Graduirtenkolleg (PhD school) “Models of Gravity” (2012-)

**Management Committee** member in the COST action “The String Theory Universe” (2013-2017 )

**Steering Committee** member for Denmark in the ESF Research Networking Programme “Holograv” (2011-)

**Scientist in charge** of three FP7 Marie Curie Reintegration Grants (currently of Dr. T. Harmark)

**Participant** of FGL (research group leader) development course (2008)

**NBI coordinator** of FP6 RTN network, “Forces, fundamental constituents and symmetries of the universe” (Oct. 2004-Sept. 2008)

**Member** of numerous NBI committees since 2002

**Member** of numerous PhD committees (Amsterdam, Barcelona, Copenhagen, Ecole Polytechnique, Gothenburg, Groningen, Mons, Reykjavik, Uppsala)

**Scientific advisory committee member** for ESF conference ”Gauge/Gravity Duality (Munich, 2013) and main European string conference: Zurich (2009), Madrid (2010), Padova (2011)

**Scientific advisory committee member** for main European string conference: Zurich (2009), Madrid (2010), Padova (2011)

**Affiliations and collaborations:** Member of GEOMAPS PhD school; Collaborators in Amsterdam, Barcelona, Berkeley (US), Cracow, Crete, Durham, Lisbon, Paris, Perimeter Institute (Canada), Perugia, Stockholm, Trieste, Utrecht.

### Refereeing

- Referee on articles in Nuclear Physics B, Physics Letters B, Physical Review Letters, Physical Review D, Journal of High Energy Physics, Classical and Quantum Gravity, International Journal of Modern Physics A, General Relativity and Gravitation. Member of advisory panel of Class. Quant. Grav.
- Referee for research proposals submitted to: NSF, BSF (US-Israel Binational Science Foundation), Czech Science Foundation, DFG (German research agency), FOM (Dutch Science Foundation), Fondecyt (Chilean Science Foundation), FWO (Research Foundation Flanders), ERC starting grants, Royal Society (UK)

**Organizing Committee** member for 16 international conferences and workshops during period 2000-2013. Most recently:

- Nordita workshop The Holographic Way: Strings, Gauge Theory and Black Holes, October 1-26, 2012
- Elite PhD School: Black Holes and Applied Holography, November 12-16, 2012

## TALKS

**Conferences and workshops:** Participant of 100 international workshops, conferences and schools, with approximately 60 invited talks or lectures.

Most recent workshops with invited talks or lectures:

- Black Holes in String Theory Workshop, University of Michigan, Ann Arbor, USA, Oct. 12-16, 2013
- Black Holes and Quantum Information, Weizmann Institute, Rehovot, Israel, January 12-17, 2014
- STAG workshop on holography, gauge theory and black holes, Southampton, UK, April 9-11, 2014

**Invited seminars:** approx. 75 invited seminars at numerous international theoretical physics institutes.

## TEACHING AND PUBLIC OUTREACH

Currently supervisor of one PhD students and two master’s students. Graduated four Ph.D. students and seventeen Master students (ten in last 5 years). Lecturer in numerous courses both at advanced level as well as undergraduate. Since 2009 lecturer of MSc course *General Relativity and Cosmology* (approx. 50 students). Interviewed for two articles in Nyhedsavisen about ‘Black holes at LHC’ and ‘Higgs particle’ respectively (2008). Article in Kvant Nr. 4, 2008 entitled “Nye dimensioner for sorte huller”. Public lecture in series “Sciences and Cocktails” (May 2010) and Kulturnat (2009 and 2010). Public lecture on NBI Temadag, 2011. Lecture on particle physics at ”Science Talenters Master Class Fysik” (Sorø academy, Oct. 14, 2012). Contributed to outreach on BICEP2 discovery (March 2014) via interviews on DR1 program Videnskabens Verden and TV2News (18/03/14), Livechat on videnskab.dk and comments in article on videnskab.dk. Lecture on “BICEP2 projekten og opdagelsen af gravitationsbølger”, (SNM, May 13, 2014).