
CURRICULUM VITAE

Personal Information

Dr. **Niels A.J. Obers**
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Birth Date: March 22, 1966, Nijmegen, Netherlands

Citizenship: Dutch

Professional Experience

Present Position

- Jan. 2012 - present: Professor, Theoretical Particle Physics and Cosmology group, Niels Bohr Institute, University of Copenhagen, Denmark
- Sep. 2017 - present: Deputy Head of Department (Research)

Previous Employment

- Jan. 2017 - Aug. 2017: Acting Head of Department
 - Sep. 2012 - Dec. 2016: Deputy Head of Department (Research)
 - Mar. 2002 - Jan. 2011: Associate professor, Theoretical Particle Physics and Cosmology group, Niels Bohr Institute, University of Copenhagen, Denmark
 - Jul. 2000 - Feb. 2002: Assistant professor ("FOM-Springplankplaats") Spinoza Institute and Institute for Theoretical Physics, Utrecht University, Netherlands
 - Sep. 1998 - Jun. 2000: Postdoctoral Researcher in Theoretical Physics Niels Bohr Institute/Nordita, Copenhagen, Denmark
 - Oct. 1996 - Sep. 1998: CERN-Fellow in Theoretical Physics CERN, Geneva, Switzerland
 - Oct. 1993 - Sep. 1996: Postdoctoral Researcher in Theoretical Physics Ecole Polytechnique, Palaiseau, France
 - Sep. 1991 - Sep. 1993: Postdoctoral Researcher in Theoretical Physics Universität Bonn, Bonn, Germany
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Academic Background

University Education

- Aug. 1987 - Aug. 1991: Graduate Studies in Physics
University of California, Berkeley, USA
- Aug. 1983 - Jul. 1987: University Studies in Physics
Universiteit Nijmegen, Nijmegen, Netherlands

Degrees

- Jul. 1991: PhD, Physics (3.9 GPA)
Thesis advisor: Prof. M.B. Halpern
- May 1989 : MA, Physics
- Jul. 1987: Drs, Physics (cum laude)
Thesis advisor: Prof. J.J. de Swart

High School Education

- Aug. 1977 - Aug. 1983: Atheneum B, Nijmeegse Scholen Gemeenschap
Nijmegen, Netherlands

Area of Research

Theoretical particle physics, in particular string theory, quantum field theory and gravity. Current interests include non-AdS holography, black holes in higher-dimensional gravity, supersymmetric gauge theories, gauge/gravity correspondence, thermal field theories, hydrodynamic description of gravity. Currently involved in examining holography for non-relativistic field theories and Newton-Cartan geometry, hydrodynamics of field theories with non-CFT scaling, dynamics of higher-dimensional black holes and branes, relation of blackfold approach to open-closed string duality.

Publications

89 in refereed journals and 10 published proceedings; editor of one workshop proceedings. 3 invited reviews; most recent review "Instabilities of black strings and branes" (2007) was selected as Editors choice article by Class. Quant. Grav. (see appendix for detailed publication list).

> 4100 citations, h-index 41 (April 2017, source: [Inspire HEP](#)); ORCID: [0000-0003-4947-8526](#)

Scientific Management

Administrative

- Danish representative in Management Committee of the Cost-Action CA16104 “Gravitational waves, black holes and fundamental physics” (2017-)
- Danish representative in Management Committee of the Cost-Action MP1405 “Quantum structure of spacetime” (2015-)
- Management Core Group of the Cost-Action MP1210 “The String Theory Universe (2013-2017)
- Danish member of the Nordita Subatomic Committee (2013-)
- Scientist in charge of H2020 MSC Grant (2015-2017)
- NBI coordinator of DFG Internationale Graduirtenkolleg “Models of Gravity” (2011-)
- Representative for Denmark in the ESF Research Networking Programme “Holograv” (2011-)
- Head of Section, Theoretical Particle Physics and Cosmology at NBI (June 2007-Aug. 2013)
- Member of Research Committee, NBI (July 2012-Aug. 2012)
- Participant of FGL (research group leader) development course (2008)
- Principal investigator of FNU framework grant “Fundamental Constituents of the Universe and the Quantum Structure of Spacetime” (2007-2011)
- Scientist in charge of three FP7 Marie Curie Reintegration Grants (in period 2008-2013)
- NBI coordinator of FP6 RTN network, “Forces, Fundamental Constituents and Symmetries of the Universe” (Oct. 2004-Sept. 2008)
- Member of various NBI committees: Colloquium Committee (Dec 2003 -June 2006, chariman), STÅ increase Committee (2005), Internationalization Committee (2004)
- Organizer/coordinator of Theoretical Particle Physics seminars and Journal Clubs
- Member of numerous PhD committees (Amsterdam, Barcelona, Copenhagen, Goetheborg, Groningen, Mons, Paris, Reykjavik, Uppsala, Utrecht)
- Scientific advisory committee member for 23rd European String Workshop, London (2018); ESF conferences in Reykjavik (2014), Munich (2013); main European string conference: Padova (2011), Madrid (2010), Zurich (2009)
- Convener of session on Non-perturbative Quantum Field Theory and String Theory at EPS-HEP conference Stockholm (2013)

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, Sci-Post; Advisory Panel Member of Classical and Quantum Gravity since 2012.
- Referee for research proposals submitted to: NSF, BSF (US-Israel Binational Science Foundation), FOM, (Dutch Science Foundation), Czech Science Foundation, DFG (German research agency), FCT (Portugese Science Foundation), Fondecyt (Chilean Science Foundation), FWO (Research Foundation Flanders), Royal Society (UK), ERC grants; Member of review panel NT-3 (Subatomic physics, space physics and astronomy) at the Swedish Research Council (2017).

Collaborations

- Collaborators in Amsterdam, Barcelona, Berkeley (US), Brussels, Cracow, Crete, Durham, Lisbon, Paris, Perimeter Institute (Canada), Perugia, Trieste, Utrecht.

Workshop/conference organization

1. Triangle Meeting 2000: Non-perturbative Methods in Field and String Theory, Nordita and Niels Bohr Institute, Copenhagen, Denmark, June 19-22, 2000
2. European Winterschool RTN 2002, Utrecht, Netherlands, January 17-21, 2002
3. Postgraduate AIO/OIO School, Theoretical High-Energy Physics, Nijmegen, Netherlands, January 28-February 8, 2002
4. 16th Nordic Network meeting on Fields, Strings and Branes, Nordita, Copenhagen, November 28-30, 2002
5. [RTN workshop The quantum structure of spacetime and the geometric nature of fundamental interactions](#), Nordita/NBI, September 15-20, 2004
6. [String Cosmology workshop](#) Uppsala, Sweden, April 25 -28, 2005
7. Cosmology, strings and black holes, NBI, April 18-21, 2006
8. Niels Bohr Summer Institute: Frontiers in Theoretical Particle Physics, NBI, July 3 - Aug 18, 2006
9. Random Matrix Theory: Recent Applications, NBI, May 7-16, 2007
10. [NBIA workshop Mathematical Aspects of General Relativity](#), NBI, April 7-17, 2008
11. [23rd Nordic Network Meeting on Strings, Fields and Branes](#), NBI, April 16-18, 2009
12. Elite PhD school: [New Horizons in Gravity](#), NBI, September 28 - October 2, 2009
13. [27th Nordic Network Meeting on Strings, Fields and Branes](#), NBI, March 24-26, 2011
14. NBI Summer Institute 2011, Strings, Gauge Theory and the LHC, NBI, August 22 - September 2, 2011
15. [Nordic String Meeting 2012](#), NBI, February 20-21, 2012
16. Nordita workshop, [The Holographic Way: String Theory, Gauge Theory and Black Holes](#), Nordita, Stockholm, Sweden, October 1-26, 2012
17. PhD school, [Black holes and applied holography](#), NBI, Copenhagen, Denmark, November 12-16, 2012
18. Denmark-Israel meeting on high energy physics, NBI, Copenhagen, Denmark, May 4-6. 2015

19. PhD school, [Holography: Entangled, Applied, and Generalized](#), NBI, Copenhagen, Denmark, October 26-30, 2015
 20. Mini-workshop: [Holography, what is going on these days ?](#), December 10-11, 2015
 21. Concluding workshop of the ESF network Holograv, [Current themes in holography: Exact results, applications, extensions and fundamentals](#), NBI, Copenhagen, Denmark, April 25-29, 2016
 22. [Nordita workshop, Black Holes and Emergent Spacetime](#), Nordita, Stockholm, Sweden, August 8 - September 2, 2016
 23. [Crete workshop on AdS/CMT and Holographic QCD](#), Heraklion, Crete, Greece, September 5-9, 2016
 24. Mini-workshop: [A Holographic Sampling](#), NBI, Copenhagen, Denmark, May 15-16, 2017
 25. MITP workshop: [Applied Newton-Cartan Geometry](#). Mainz, Germany, March 12-16, 2018
 26. NBIA workshop: Emergent Symmetries in Particle Physics and Condensed Matter Systems, Copenhagen, Denmark, June 20-22, 2018
 27. Nordita program [Cosmology and Gravitational Physics with Lambda](#), Stockholm, Sweden, July 30 - August 17, 2018
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Fellowships and Grants

- CERN-Fellowship (1996-1998)
 - EU RTN network postdoctoral grant (1998-2000)
 - five-year FOM “Springplankplaats” grant (used from 2000-2002)
 - participant of EU-grant, ForcesUniverse, RTN project “Constituents, Fundamental Forces and Symmetries of the Universe” (2004-2008)
 - participant of Danish PhD school Geometry and Mathematical Physics School (GEOMAPS) (2008-2012)
 - Faculty Grant for Elite PhD school: 80.000 DKK (2012); 80.000 DKK (2015)
 - Nordita grant for workshop “The Holographic Way: String Theory, Gauge Theory and Black Holes” (2012): 42.000 EUR
 - Nordita grant for workshop “Black Holes and Emergent Spacetime” (2016): 42.000 EUR
 - participant of DFF-FNU (Danish Research Council) grant “From Quarks to Big Bang” (2005-2007)
 - Principal investigator of FNU framework grant (1.6 Million DKK): “Fundamental Constituents of the Universe and the Quantum Structure of Spacetime” (2007-2011)
 - co-PI of FNU project 2 grant (5.7 Million DKK) “Black Holes and their role in Quantum Gravity” (2011-2014)
 - PI of FNU project 1 grant (2.8 Million DKK) “New Horizons in Particle and Condensed Matter Physics from Black Holes” (2013-2017)
 - Scientist in Charge of Marie Curie Fellowship (2 Million DKK) “Fundamentals of Holographic Dualities via Non-relativistic Systems and Quasinormal Modes” (2015-2017)
 - PI of FNU project 2 grant (6.3 Million DKK) “Towards a Deeper Understanding of Black Holes with Non-Relativistic Holography” (2017-2021)
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Teaching

Lecturer in numerous courses both at undergraduate as well as advanced level (MSc and PhD). (see appendix for further details)

Conferences, Workshops and Seminars

Participant of 145 international workshops, conferences and schools, with approximately 75 invited talks or lectures (see appendix for detailed list). Approximately 75 invited seminars at numerous international theoretical physics institutes (see appendix for list of institutions).

Public Outreach

Presentations

Presentation for VKR board (2004). Public lecture in series Sciences and Cocktails (May 2010). Public talks at NBI on “Kulturnat” 2009 and 2010. Public lecture on NBI Temadag, 2011. Lecture for Science-Talent, Sorø (Oct. 2012). Lecture for gymnasium students on *BICEP2-projektet og opdagelsen af gravitationsbølger* on SNM temadag (23/5/14). Lecture on BICEP2 for Astronomisk Forening for Køge Bugt (28/10/14). Lectures on gravity for Folkeuniversitet: Jels (19/3/15), Copenhagen (4/5/15), Aarhus (11/5/15). Lecture on black holes for UNF Danmark (31/3/16). Public talk on gravitational waves and LIGO experiment: Astronomisk Forening for Køge Bugt (16/11/16), NOVA, Helsingør (29/11/16), Kalundborg Folkeuniversitet (3/10/17), Chula University, Bangkok (1/2/18), Astronomisk Forening for Køge Bugt (26/2/18).

Articles

Invited Article written for Kvant Nr. 4, 2008 (together with T. Harmark) entitled “Nye dimensioner for sorte huler”. Videnskabskroniken in Politiken: Big Bang: Ny opdagelse udløser eufori (02/05/14)
Invited Article for Aktuel Videnskab, AN6-2017, Dec. 2017 (together with M. Vestergaard and T. Harmark) entitled “Tyngdebølger”.

Media appearances

Contributed to outreach on BICEP2 discovery (March 2014) via interviews on DR1 program Videnskabens Verden and [live TV appearance on TV2News](#) (18/03/14). Interviewed for radio program Videnskabens Verden (Fall 2014) about Black Holes and Big Bang. Live TV interview on 100 year Einstein’s theory on DR aftenshow (27/11/15), Live TV interview on Hawking’s black hole theory, Go morgen Danmark (24/8/16). Live Radio interview on LIGO discovery, P2 (28/12/16). Interview [Podcast on gravity](#)

Mentioning in news media (incomplete list)

- Interviewed for two articles in Nyhedsavisen about “Black holes at LHC” and “Higgs particle” respectively (2008).
- <http://videnskab.dk/miljo-naturvidenskab/forskere-disse-fund-kan-vi-forvente-af-tyngdebølger>
- <http://videnskab.dk/miljo-naturvidenskab/fysikerne-jubler-vi-har-fundet-tyngdebølger>
- <http://videnskab.dk/miljo-naturvidenskab/hvad-er-tyngdebølger>

- <http://ekstrabladet.dk/nyheder/samfund/begejstret-professor-det-aabner-for-en-helt-ny-verden>
 - <http://nyheder.tv2.dk/samfund/2015-11-25-100-aar-i-dag-einsteins-teori-der-bragte-ny-verden>
 - <http://videnskab.dk/miljo-naturvidenskab/maelkevejen-rummer-muligvis-tunnel-til-en-ny-verden>
 - <http://jyllands-posten.dk/nyviden/ECE7206439/Holder-fysikken-i-ny-storfilm/>
 - <http://videnskabsbloggen.dk/?p=115>
 - <http://www.mx.dk/viden/videnskab/story/12152264>
 - <http://ing.dk/artikel/har-tiden-altid-gaet-lige-hurtigt-119401>
 - <http://nyheder.tv2.dk/udland/2016-02-11-einstein-havde-ret-en-helt-ny-verden>
 - Einstein to shed light on black holes (In english) An article, by Berit Viuf, on the research project of J. Ambjørn, and N. Obers In ScienceNordic, Dec 2012
 - Videnskab.dk: <http://videnskab.dk/kort-nyt/ny-viden-om-universets-sorter-huller>
 - Jyllandsposten: <http://jyllands-posten.dk/nyviden/ECE4946943/danskere-kaster-lys-over-sorte-huller>
 - <http://www.onenewspage.com/n/Science/74rkhy50k/New-theories-help-unveil-%60mysterier-om-sorter-huller>
 - <http://www.shortnews.de/id/999296/neue-erstaunliche-erkenntnisse-zu-schwarzen-loechern>
 - <http://beforeitsnews.com/space/2012/12/researchers-shed-light-on-remarkable-properties-of-black-holes>
 - Ingeniøren: <http://ing.dk/artikel/et-braendende-spoergsmaal-om-sorter-huller-nager-fysik>
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Students

Ph.D. students:

- Peter Rønne: *Factorization of Seiberg-Witten Curves and Black Holes on a Circle* (Nov. 2007), Faculty stipend (postdocs DESY, Witwatersrand, Cologne, Luxembourg)
- Jacome Armas: *Electro (Elasticity) from Gravity* (Nov. 2012), funded by FCT (Portugese science foundation) postdocs Bern, ULB)
- Jakob Gath: *Hydrodynamics and Elasticity of Charged Black Branes* (Sept. 2013), funded by NBI (2/3) and GEOMAPS (1/3) (postdoc Ecole Polytechnique)
- Andreas Vigand Pedersen: *Effective gravitational theories in string theory and the AdS/CFT correspondence* (March 2014), funded by Niels Bohr Scholarship (postdoc Berkeley)
- Marco Sanchioni (expected PhD, December 2017), funded by FNU project grant (2/3) and NBI (1/3)

MSc students

- Thomas Pedersen, Non-commutative quantum field theory (2003)
- Boris Jelstrup Andersen, Thermodynamics of black branes (2004)
- Peter Browne Roenne, Supersymmetric gauge theory (2004)
- Kristoffer Hauskov Andersen, Chiral ring and generalized Konishi anomaly (2005)
- Kasper Falkenberg Andersen, Wilson loops and the AdS/CFT correspondence (2005)
- Victoria Mazo, On AdS/CFT models (2007)
- Johannes Weirich, D3-brane descriptions of Wilson loops in the AdS/CFT correspondence (2007)
- Rafal Mostowy, Aspects of the correspondence between string theory on orbifolds and quiver gauge theories (2007)
- Kasper Jens Larsen, Phases of $\mathcal{N} = 2$ quiver gauge theories (2007)
- Mads Brandt, Explicit amplitudes for scattering of open strings on the worldvolume of a single D-brane (2009)
- Andreas Vigand Pedersen, Black holes and the fluid/gravity correspondence (2010)
- Esben Mølgaard, Magnetized branes (2010)

- Nikos Karozis, The Kerr/CFT correspondence (2011)
 - Gabriele Conti, Blackfolds in string theory (2012)
 - Jakob Lorenzen, Hyperscaling violation in N=2 gauged supergravity (2012)
 - Heidar Moradi, Higher-spin holographic dualities and W-Algebras (2012)
 - Morten Holm Christensen, Aspects of Lifshitz holography (2013)
 - Svavar Gunnar Gunnarsson, Dipole moments of black branes (2014)
 - Isak Buhl-Mortensen, Conformal symmetry for black holes: Subtracted geometry and hidden conformal symmetry (2014)
 - Dennis Hansen, On non-relativistic field theory and geometry (2016)
 - Emil Have, On charged Lifshitz holography (2017)
 - Marieke van Beest, Non-relativistic Chern-Simons theories of gravity (expected early 2018)
 - Bjarke Nielsen, Dynamical world volumes in Newton-Cartan geometry (expected Summer 2018)
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Further Information

Languages:

- Dutch, Danish, English, German (fluent)
- French (good)
- Spanish (fair)

Computers

- Operating systems: Unix, Windows, Mac-OS
 - Computer languages: HTML, C, Maple, Mathematica
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Conferences and Workshops

1. XIX International Colloquium on Group Theoretical Methods in Physics, Salamanca, Spain, June 29 - July 4, 1992 (invited talk)
2. Strings '93.
University of California, Berkeley, USA, May 24-29, 1993
3. Spring School and Workshop on String Theory, Gauge Theory and Quantum Gravity, ICTP, Trieste, Italy, April 11-22, 1994 (invited talk)
4. XVIII-th Triangle Meeting on Modern Field Theory,
Niels Bohr Institute, Copenhagen, Danmark, June 27-29, 1994 (invited talk)
5. XI-th International Congress of Mathematical Physics,
Paris, France, July 18-23, 1994
Satellite Colloquium, Topology, Strings and Integrable Models,
Paris, France, July 25-28, 1994
6. XXX-th Rencontres de Moriond,
Les Arcs 1800, France, March 11-18, 1995
7. SUSY-95 International Workshop,
Ecole Polytechnique, Palaiseau, France, May 15-19, 1995
8. XXVII Ecole Normale Summer Institute, Duality in Field Theory and String Theory,
Ecole Normale Supérieure, Paris, France, July 31 - August 11, 1995
9. 5th Hellenic School and Workshops on Elementary Particle Physics,
Corfu, Greece, September 18-24, 1995
10. Workshop on Recent Developments in Theoretical Physics, STU-Dualities and Non-Perturbative Phenomena in Superstrings and Supergravity,
CERN, Geneva, Switzerland, November 28 - December 1, 1995
11. Workshop on Algebraic Approaches to Quantum Dynamics,
The Fields Institute for Research in Mathematical Physics, Toronto, Canada, May 7-12, 1996 (invited talk)
12. Workshop on String Duality,
CERN, Geneva, Switzerland, June 17-21, 1996
13. Network Meeting on Duality,
University of Crete, Heraklion, Crete, September 9-14, 1996 (invited talk)
14. Spring School on String Theory, Gauge Theory and Quantum Gravity,
ICTP, Trieste, Italy, April 7-12, 1997
15. Strings 97,
Amsterdam, Netherlands, June 16-21, 1997
16. 3rd Workshop on Recent Developments in Theoretical Physics: Nonperturbative Aspects of Strings, Branes and Fields,
CERN, Geneva, Switzerland, December 8-12, 1997
17. Amsterdam Summer Workshop on String Theory and Black Holes,
University of Amsterdam, Netherlands, July 20-24, 1998 (invited talk)

18. Quantum Aspects of Gauge Theories. Supersymmetry and Unification, TMR-midterm meeting,
Corfu, Greece, September 20-26, 1998 (invited talk)
19. Workshop on Matrix Theory and Quantum Gravity,
Niels Bohr Institute, Copenhagen, Danmark, November 26-28, 1998 (invited talk)
20. XXIIInd Triangle Meeting on Gauge Theory, Strings and Gravity,
University of Utrecht, Netherlands, May 26-28, 1999 (invited talk)
21. Amsterdam Summer Workshop on String Theory, Gauge Theory and Gravity.
University of Amsterdam, Netherlands, July 5-9, 1999
22. Strings 99,
Potsdam, Germany, July 19-24, 1999 (invited talk)
23. Quantum Aspects of Gauge Theories, Supersymmetry and Unification, TMR meeting,
Paris, France, September 1-7, 1999 (invited talk)
24. Workshop on Non-Commutative Gauge Theory,
Leiden, Netherlands, November 22-26, 1999
25. TMR winterschool, Contemporary String Theory and Brane Physics,
Torino, Italy, January 26-February 2, 2000
26. International conference, Quantization, Gauge Theory and Strings (dedicated to the memory
of Prof. E. Fradkin),
Moscow, Russia, June 5-10, 2000 (invited talk)
27. Euroconference on Quantum Fields and Strings,
Kolymbari, Crete, Greece, September 9-15, 2000 (invited talk)
28. 1st workshop of RTN network The Quantum Structure of Spacetime and the Geometric Nature
of Fundamental Interactions,
Humboldt University, Berlin, Germany, October 4-10, 2000 (invited lecture)
29. 12th Nordic network meeting on Supersymmetric Field and String Theories,
Göteborg, Sweden, November 16-18, 2000 (invited talk)
30. Strings 2001,
Tata Institute for Fundamental Research, Mumbai, India, January 5-11, 2001
31. RTN winterschool Latest Developments in M-theory,
Institute Henri Poincaré, Paris, France, February 1-8, 2001
32. Trends in Theory 2001,
Dalfsen, Netherlands, May 31-June 1, 2001 (invited talk)
33. Amsterdam Summer workshop, Strings and Quantum Gravity,
UvA, Amsterdam, July 2001
34. Corfu 2001, RTN workshops,
Corfu, Greece, September 10-20, 2001
35. European Superstring Network Meeting, M-Theory, Gravity and Geometry,
Isaac Newton Institute for Mathematical Sciences, Cambridge, UK, Feb. 11-15, 2002 (invited
talk)
36. 35th International Symposium Ahrenschoop on the Theory of Elementary Particles, Recent
Developments in String/M-Theory and Field Theory,
Akademie Berlin-Schmöckwitz, Wernsdorf, Berlin, Germany, August 26-30, 2002 (invited talk)

37. RTN workshop The quantum structure of spacetime and the geometric nature of fundamental interactions,
Leuven, Belgium, September 13-19, 2002
38. Workshop on Branes and Cosmology,
Lorentz Center, Leiden, Netherlands, November 18-22, 2002
39. 16th Nordic Network meeting on Fields, Strings and Branes,
Nordita, Copenhagen, Denmark, November 28-30, 2002 (lecture)
40. RTN winterschool on Strings, Supergravity and Gauge theory,
Torino, Italy, January 7-11, 2003
41. 17th Nordic Network String Meeting,
Oslo, Norway, May 8-10, 2003 (invited talk)
42. Amsterdam workshop, String Theory and Quantum Gravity,
UvA, Amsterdam, Netherlands, Jun. 15-19, 2003
43. Strings 2003,
Kyoto, Japan, July 6-11, 2003
44. Nordic School on String Theory,
Nordita, Copenhagen, Denmark, July 29-August 7, 2003 (lectures)
45. RTN winterschool The quantum structure of spacetime and the geometric nature of fundamental interactions,
University of Barcelona, Barcelona, January 12-16, 2004
46. 18th Nordic Network Meeting on Fields, Strings and Branes
Groningen, Netherlands, May 13-15, 2004
47. Strings 2004,
College de France, Paris, France, June 28 - July 2, 2004
48. 37th International Symposium Ahrenshoop on the Theory of Elementary Particles, Recent Developments in String/M-Theory and Field Theory ,
Akademie Berlin-Schmöckwitz, Wernsdorf, Berlin, Germany, August 23-27, 2004 (invited talk)
49. RTN Workshop, The quantum structure of space-time and the geometric nature of fundamental interactions,
Crete, Greece, September 5-10, 2004
50. 19th Nordic Network Meeting on strings, fields and branes, Uppsala String Meeting,
November 18-20, 2004 (invited talk)
51. String vacuum workshop,
Max Planck Institute for Physics, Munich, November 22-24, 2004
52. Norfa network "Theoretical Particle Physics and Cosmology" Ph.D. winter-school,
Gausdal, Norway, Jan. 2-8, 2005 (lectures)
53. Bernardfest, International Meeting on occasion of Bernard de Wit's 60th birthday,
Utrecht, Netherlands, May 27-28, 2005
54. Amsterdam String Theory Workshop,
Amsterdam, Netherlands, June 15-22, 2005
55. Strings 2005,
Toronto, Canada, July 11-16, 2005
56. RTN network meeting, Constituents, fundamental forces and symmetries of the universe,

- Corfu, Greece, September 20-26, 2005
57. 20th Nordic String meeting,
Helsinki, Finland, October 27-28, 2005 (invited talk)
 58. KITP workshop, Scanning new horizons: GR beyond 4 dimensions,
Santa Barbara, USA, January 9, March 10, 2006 (invited talk)
 59. Amsterdam Summer Workshop on String Theory,
Amsterdam, July 3-13, 2006 (invited talk)
 60. 't Hooft fest,
Vlieland, Netherlands, July 14-16, 2006
 61. RTN Workshop,
Napoli, Italy October 9-13, 2006 (invited talk)
 62. PhD school on inflation and quantum cosmology,
Århus, October 23-29, 2006 (lecturer)
 63. RTN winter school,
CERN, Geneva, Switzerland, Jan. 15-19, 2007
 64. Einstein's Gravity in Higher Dimensions,
Jerusalem, Israel Feb 13-23, 2007 (invited talk)
 65. Pre-strings 2007, Workshop on Gravitational Aspects of Strings and Branes
Granada, Spain, June 18-22, 2007 (invited talk)
 66. Symmetries of String Theory,
Ascona, Switzerland, August 26-31, 2007
(invited talk)
 67. Fourth Aegean Summer School on Black Holes,
Mytilene, Island of Lesbos, Greece, September 17-22, 2007
(invited lecture)
 68. 3rd RTN workshop,
Valencia, Spain, October 1-5, 2007
 69. RTN winterschool on Strings, Supergravity and Gauge Theories,
CERN, Geneva, Switzerland, January 21-25, 2008
 70. Non-Perturbative Methods in Strongly Coupled Gauge Theories,
Galileo Galilei Institute, Florence, Italy, May 4-9, 2008
 71. CERN Black hole workshop
Geneva, Switzerland, Sep. 29 - Oct. 3, 2009 (invited talk)
 72. 22nd Nordic Network Meeting on Strings, Fields and Branes
Stockholm, Sweden, Nov. 27-29, 2008 (talk)
 73. Brussels/Paris/Amsterdam PhD school, lecture series on Black holes in string theory
Amsterdam, Netherlands, Dec 2-5, 2008 (invited lectures)
 74. 5th workshop on Gravitational Aspects of Strings and Branes
Gijon, Spain, Feb. 3-5, 2009 (invited talk)
 75. GeNeZiSS, Mini-Conference Series of the Swiss String Theory Community
Bern, Switzerland, Mar. 13, 2009 (invited talk)
 76. Nordic String Theory Meeting

- Bremen, Germany, Mar. 26-27, 2009 (talk)
77. Cracow School of Theoretical Physics, XLIX Course, 2009 and 2009 ENRAGE Topical School on: Non-perturbative Gravity and Quantum Chromodynamics
Zakopane, Poland, May 31-Jun. 10, 2009 (invited lectures)
 78. Fifth Crete regional meeting in String Theory
Kolymbari, Greece, Jun. 28 - Jul. 6, 2009 (invited talk)
 79. Gravity - New perspectives from strings and higher dimensions
Benasque, Spain, Jul. 19 - 24, 2009 (invited talk)
 80. 15-th European Workshop on String Theory
ETH, Zürich, Switzerland, Sep. 7-11, 2009 (scientific advisory committee)
 81. Brussels/Paris/Amsterdam PhD school, lecture series on Advanced String Theory
Amsterdam, Netherlands, Nov. 30 - Dec. 3, 2009 (invited lectures)
 82. 24th Nordic network meeting on Strings, Fields and Branes
Groningen, Netherlands, Dec. 3-5, 2009 (talk)
 83. Winter School on Supergravity, Strings, and Gauge Theory
CERN, Geneva, Switzerland, Jan. 25-29, 2010
 84. 25th Nordic network meeting on Strings, Fields and Branes
Nordita, Stockholm, Sweden, Mar. 23-25, 2010
 85. Solvay workshop Symmetries and Dualities in Gravitational Theories
Brussels, Belgium, May 19-21, 2010 (invited talk)
 86. Workshop on Integrability in String and Gauge Theories; AdS/CFT Duality and its Applications
Nordita, Stockholm, Sweden, Jun. 7-11, 2010 (invited talk)
 87. Eurostrings 2010
Madrid, Spain, Jun. 14-18, 2010 (scientific advisory committee)
 88. Amsterdam Summer Workshop on String Theory
Amsterdam, Netherlands, June 28 - July 2, 2010
 89. 40th International Symposium Ahrenshoop on the Theory of Elementary Particles: Recent Developments in String/M-Theory and Field Theory
Berlin, Germany, Aug. 23-2, 2010 (invited talk)
 90. Crete Conference on Gauge Theories And The Structure Of Spacetime
Kolymbari, Crete, Greece, Sep. 11-18, 2010 (invited talk)
 91. Black holes and higher dimensions
Imperial College, London, United Kingdom, Sep. 20-24, 2010 (invited talk)
 92. Brussels/Paris/Amsterdam PhD school, lecture series on Advanced String Theory
Amsterdam, Netherlands, Dec. 6-10, 2010 (invited lectures)
 93. Nordic String Theory Meeting
Humboldt University, Berlin, Germany, Feb. 14-15, 2011 (talk)
 94. Large-N Gauge Theories
Galileo Galilei Institute, Florence, Italy, May 9-13, 2011 (invited talk)
 95. String 2011
Uppsala, Sweden, Jun. 27 - Jul. 1, 2011
 96. Gravity - New perspectives from strings and higher dimensions

- Benasque, Spain, Jul. 18- 23, 2011
97. XVII European Workshop on String Theory
Padua, Italy, Sep. 5-9, 2011 (scientific advisory committee)
 98. Workshop: The supersymmetric, the extremal and the ugly - solutions in string theory
Saclay, France, Nov. 15-17, 2011 (invited talk)
 99. Brussels/Paris/Amsterdam PhD school, lecture series on Advanced String Theory
Amsterdam, Netherlands, Nov. 29 -1 Dec. 2, 2011 (invited lectures)
 100. Conference on Common Trends in Gauge Fields, Strings and Integrable Systems
Nordita, Stockholm, Sweden, February 6-10, 2012
 101. Annual spring meeting of the German Physical Society
Göttingen, Germany, February 7 - March 2, 2012 (invited talk)
 102. KITP workshop: Bits, branes and black holes
KITP, Santa Barbara, USA, March 19- April 27, 2012 (talk)
 103. Amsterdam String workshop
Amsterdam, Netherlands, July 2-6, 2012
 104. Summer Institute on String Theory
ENS, Paris, France, August 20-24, 2012 (invited talk)
 105. Geometry and Physics
ASC workshop at the MPP, Munich, Germany, November 19-23, 2012 (invited talk)
 106. Brussels/Paris/Amsterdam PhD school, lecture series on Advanced String Theory
Amsterdam, Netherlands, Dec.17-20, 2012 (invited lectures)
 107. Iberian Strings 2013
IST Lisbon, Portugal, January 22-25, 2013 (invited talk)
 108. ESF HoloGrav 2013 Workshop
Helsinki, Finland, March 4-8 (invited talk)
 109. Erasmus-IP-2013 PhD school
Heraklion, Crete, Greece, April 9-12 (invited lectures)
 110. FOM String Meeting
Utrecht, Netherlands, June 14-15, 2013 (invited talk)
 111. Gauge/Gravity Duality 2013
Max-Planck-Institut fr Physik, Munich , Germany, July 29- Aug. 2, 2013 (invited talk)
 112. Current Themes in High Energy Physics and Cosmology”
NBIA, Copenhagen, Denmark, August 12-16, 2013 (advisory committee)
 113. The String Theory Universe, 19th European Workshop on String Theory, AEC Workshop and
1st COST MP1210 Meeting
Bern, Switzerland, September 2-6, 2013 (invited talk)
 114. Workshop Models of Gravity
Jacobs University, Bremen, Germany, Oct. 7-9, 2013 (invited talk)
 115. Black Holes in String Theory Workshop
University of Michigan, Ann Arborg, USA, Oct. 12-16, 2013 (invited talk)
 116. Black Holes and Quantum Information
Weizmann Institute, Rehovot, Israel, January 12-17, 2014 (invited talk)

117. STAG workshop on holography, gauge theory and black holes
Southampton, UK, April 9-11, 2014 (invited talk)
118. Applications of gauge/gravity duality
Gothenburg, Sweden, June 2-4, 2014 (invited talk)
119. Strings 2014
Princeton, USA, June 23-27, 2014
120. Holographic methods and applications
Reykjavik, Iceland, August 18-22, 2014 (advisory committee)
121. Current themes in high energy physics and cosmology
NBIA, Copenhagen, Denmark, August 25-29, 2014
122. Quantum field theory, string theory and condensed matter physics
Kolymbari, Crete, Greece, September 1-7, 2014 (invited talk)
123. Holoday
Perugia, Italy, November 20, 2014 (invited talk)
124. Holographic renormalization group and entanglement
APC, Paris, France, January 26-28, 2015 (invited talk)
125. Progress in fluid/gravity correspondence
Thessaloniki, Greece, February 16-20, 2015 (invited talk)
126. ESF Holograv conference
GGI, Firenze, Italy, April 13-17, 2015 (invited talk)
127. Denmark-Israel Symposium on High Energy Physics
NBI, Copenhagen, Denmark, May 4-6, 2015 (organizing committee)
128. DRSTP Symposium Trends in Theory 2015
Dalfsen, Netherlands, May 29, 2015 (invited talk)
129. Eighth Crete Regional Meeting on String Theory
Nafplion, Greece, July 5-10, 2015 (invited talk)
130. 6th Joburg Worskhop on String Theory
Witwatersrand Rural Facility, South Africa, September 5-11, 2015 (invited talk)
131. Applications of Gauge/Gravity Duality
Gothenburg, Sweden, October 21-23, 2015 (invited talk)
132. Quantum Spacetime '16
Zakopane, Poland, February 6-12, 2016 (invited talk)
133. 10th Nordic String Theory Meeting
Bremen, Germany, March 14-15, 2016
134. Flat Holography
Simons Center, Stony Brook, USA, April 4-8, 2016 (invited talk)
135. Holography and Dualities
Nordita, Stockholm, Sweden, April 18-20, 2016 (invited talk)
136. String Stuff
University of Utrecht, Netherlands, June 8-10, 2016 (invited talk)
137. Amsterdam Summer Workshop on String Theory,
Amsterdam, Netherlands, July 11-18, 2016

138. Simons Program: Current Themes in High Energy Physics and Cosmology, NBIA, Copenhagen, Denmark, Aug. 15-26 (invited talk)
 139. Workshop on Geometry and Physics (in memoriam of Ioannis Bakas), Ringberg Castle, Tegernsee, Germany, Nov. 20-25, 2016 (invited talk)
 140. Nordic Winter School on Cosmology and Particle Physics, Skeikampen, Norway, Jan. 2-7, 2017 (invited lectures)
 141. Quantum Spacetime 2017
Porto, Portugal, Jan. 30 - Feb. 3, 2017
 142. The String Theory Universe
Milan, Italy, Feb. 20-24, 2017
 143. Applied Newton-Cartan Geometry
Simons Center, Stony Brook, USA, Mar. 6-10, 2017 (invited talk)
 144. Joburg Workshop on Black holes and Entanglement
Wits University, Johannesburg, South Africa, Mar. 27-31, 2017 (invited talk)
 145. Workshop on holography, black holes and numerical relativity
STAG Research Centre, Southampton, UK, Apr. 3-5, 2017 (invited talk)
 146. LPTENS Summer Institute XLVII
Paris, France, Aug. 21-22, 2017 (invited talk)
 147. Corfu Workshop on Testing Fundamental Physics Principles
Corfu, Greece, Sept. 23-28, 2017 (invited talk)
 148. 7th Bangkok Workshop on High-Energy Theory
Chula University, Bangkok, Thailand, Jan. 29 - Feb. 2, 2018 (invited talk)
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Visits with Seminar

approximately 70 invited seminars at numerous theoretical physics institutions:

- Belgium: Brussels, Leuven
- Denmark: Copenhagen, Aarhus
- England: Imperial College, King's College, Queen Mary, Cambridge, Durham, Oxford
- France: Annecy, Ecole Normale, IHES, Jussieu, Saclay, Ecole Polytechnique
- Germany: AEI Potsdam, Bonn, Bremen (ZARM), Hamburg (DESY), Berlin (Humboldt), Würzburg
- Greece: Heraklion
- Israel: Weizmann Institute
- Italy: ICTP (Trieste), Perugia, Pisa, Rome II, ,
- Netherlands: Amsterdam, Groningen, Leiden, Nijmegen, Utrecht
- Portugal: Lisbon
- South-Korea: Seoul (APCTP)
- Spain: Barcelona, Santiago de Compostella
- Sweden: Göteborg, Uppsala

- Switzerland: CERN
 - USA: Austin, Berkeley, Caltech, Gainesville, Harvard, MIT, Stanford
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Teaching record

- Apr. 2017 - Jun. 2017: Introduction to Gauge/Gravity Duality (coordinator)
- Sept. 2015- Nov. 2015: Introduction to General Relativity and Cosmology (lecturer)
- Sept. 2014- Nov. 2014: Introduction to General Relativity and Cosmology (lecturer)
- Sept. 2013- Nov. 2013: Introduction to General Relativity and Cosmology (lecturer)
- Apr. 2013 - Jun. 2013: Reading course on AdS/CFT correspondence (coordinator)
- Apr. 2013 - Jun. 2013: Introduction to String Theory (coordinator)
- Aug. 2012 - Nov. 2012: Introduction to General Relativity and Cosmology (lecturer)
- Apr. 2012 - Jun. 2012: QFTII: Introduction to Supersymmetry (coordinator)
- Aug. 2011 - Nov. 2011: Introduction to General Relativity and Cosmology (lecturer)
- Apr. 2011 - Jun. 2011: Introduction to String Theory (lecturer)
- Apr. 2011 - Jun. 2011: Reading course on Supersymmetry (coordinator)
- Feb. 2011 - Apr. 2011: MatF (lecturer)
- Aug. 2010- Nov. 2010: Introduction to General Relativity and Cosmology (lecturer)
- Apr. 2010 - Jun. 2010: Quantum Field Theory II (coordinator)
- Feb. 2010 - Apr. 2010: MatF (lecturer)
- Aug. 2009- Nov. 2009: Introduction to General Relativity and Cosmology (lecturer)
- Apr. 2009 - Jun. 2009: Introduction to String Theory (lecturer)
- Feb. 2009 - Apr. 2009: MatF (lecturer)
- Oct. 2008 - Jan. 2009: Linalg (exercises)
- Apr. 2008 - Jun. 2008: Quantum Field Theory II (lecturer)
- Feb. 2008 - Apr. 2008: MatF (lecturer)
- Sept. 2007- Nov. 2007: Classical mechanics and special relativity (exercises)
- Jan. 2007 - Apr. 2007: MatF (lecturer)
- Jan. 2007 - Apr. 2007: Introduction to String Theory (lecturer)
- Nov. 2006- Jan. 2007: Reading course on D-branes (coordinator)
- Sept. 2006- Nov. 2006: Classical mechanics and special relativity (exercises)
- Sept. 2005- Nov. 2005: Introduction to String Theory (lecturer)
- Apr. 2005 - Jun. 2005: Quantum Field Theory II (lecturer)
- Jan. 2005 - Apr. 2005: MatF (exercises)
- Jan. 2004 - Jun. 2004: F22, Quantum mechanics (exercises)
- Sep. 2004 - Dec. 2004: F212, Analytical mechanics (exercises)
- Jan. 2003 - Jun. 2003: F717, Special topics in theoretical high energy physics (lecturer)
- Sep. 2002 - Dec. 2002: F311, Statistical physics (exercises)
NBI, KU, Danmark
- Jan. 2002 - Apr. 2002: String theory (lecturer)
University of Amsterdam, Netherlands
- Jan. 2001 - May. 2001: String theory (lecturer)
University of Utrecht, Netherlands
- Sep. 2000 - Dec. 2000: Quantum field theory and many body physics (lecturer)
University of Utrecht, Netherlands
- Aug. 1991 - Jul. 1993: Coordinator of courses undergraduate physics
University of Bonn, Germany
- Aug. 1987 - Jul. 1989: Teaching assistant, various undergraduate physics courses,
University of California, Berkeley, USA
- Aug. 1985 - Jul. 1987: Teaching assistant, algebra for physicists ,
University of Nijmegen, Netherlands

Publications (Niels A. Obers)

Papers

1. J. Armas, T. Harmark, and N. A. Obers, “Extremal Black Hole Horizons,” [arXiv:1712.09364 \[hep-th\]](#). (To appear in JHEP)
2. J. Hartong, Y. Lei, N. A. Obers, and G. Oling, “Zooming in on $\text{AdS}_3/\text{CFT}_2$ near a BPS Bound,” [arXiv:1712.05794 \[hep-th\]](#).
3. K. T. Grosvenor, J. Hartong, C. Keeler, and N. A. Obers, “Homogeneous Nonrelativistic Geometries as Coset Spaces,” [arXiv:1712.03980 \[hep-th\]](#).
4. J. de Boer, J. Hartong, N. A. Obers, W. Sybesma, and S. Vandoren, “Hydrodynamic Modes of Homogeneous and Isotropic Fluids,” [arXiv:1710.06885 \[hep-th\]](#).
5. J. de Boer, J. Hartong, N. A. Obers, W. Sybesma, and S. Vandoren, “Perfect Fluids,” [arXiv:1710.04708 \[hep-th\]](#).
6. T. Harmark, J. Hartong, and N. A. Obers, “Nonrelativistic strings and limits of the AdS/CFT correspondence,” *Phys. Rev.* **D96** no. 8, (2017) 086019, [arXiv:1705.03535 \[hep-th\]](#).
7. G. Festuccia, D. Hansen, J. Hartong, and N. A. Obers, “Torsional Newton-Cartan Geometry from the Noether Procedure,” *Phys. Rev.* **D94** no. 10, (2016) 105023, [arXiv:1607.01926 \[hep-th\]](#).
8. G. Festuccia, D. Hansen, J. Hartong, and N. A. Obers, “Symmetries and Couplings of Non-Relativistic Electrodynamics,” *JHEP* **11** (2016) 037, [arXiv:1607.01753 \[hep-th\]](#).
9. J. Hartong, N. A. Obers, and M. Sanchioni, “Lifshitz Hydrodynamics from Lifshitz Black Branes with Linear Momentum,” *JHEP* **10** (2016) 120, [arXiv:1606.09543 \[hep-th\]](#).
10. J. Armas, J. Gath, V. Niarchos, N. A. Obers, and A. V. Pedersen, “Forced Fluid Dynamics from Blackfolds in General Supergravity Backgrounds,” *JHEP* **10** (2016) 154, [arXiv:1606.09644 \[hep-th\]](#).
11. J. Hartong, Y. Lei, and N. A. Obers, “Nonrelativistic Chern-Simons theories and three-dimensional Hořava-Lifshitz gravity,” *Phys. Rev.* **D94** no. 6, (2016) 065027, [arXiv:1604.08054 \[hep-th\]](#).
12. J. Armas, N. A. Obers, and M. Sanchioni, “Gravitational Tension, Spacetime Pressure and Black Hole Volume,” *JHEP* **09** (2016) 124, [arXiv:1512.09106 \[hep-th\]](#).
13. J. Hartong and N. A. Obers, “Hořava-Lifshitz gravity from dynamical Newton-Cartan geometry,” *JHEP* **07** (2015) 155, [arXiv:1504.07461 \[hep-th\]](#).
14. J. Hartong, E. Kiritsis, and N. A. Obers, “Field Theory on Newton-Cartan Backgrounds and Symmetries of the Lifshitz Vacuum,” *JHEP* **08** (2015) 006, [arXiv:1502.00228 \[hep-th\]](#).
15. J. Hartong, E. Kiritsis, and N. A. Obers, “Schrödinger Invariance from Lifshitz Isometries in Holography and Field Theory,” *Phys. Rev.* **D92** (2015) 066003, [arXiv:1409.1522 \[hep-th\]](#).
16. J. Hartong, E. Kiritsis, and N. A. Obers, “Lifshitz spacetimes for Schrödinger holography,” *Phys. Lett.* **B746** (2015) 318–324, [arXiv:1409.1519 \[hep-th\]](#).
17. M. H. Christensen, J. Hartong, N. A. Obers, and B. Rollier, “Boundary Stress-Energy Tensor and Newton-Cartan Geometry in Lifshitz Holography,” *JHEP* **1401** (2014) 057, [arXiv:1311.6471](#)

- [hep-th].
18. M. H. Christensen, J. Hartong, N. A. Obers, and B. Rollier, “Torsional Newton-Cartan Geometry and Lifshitz Holography,” *Phys.Rev.* **D89** no. 6, (2014) 061901, [arXiv:1311.4794 \[hep-th\]](#).
 19. J. Armas, J. Gath, and N. A. Obers, “Electroelasticity of Charged Black Branes,” *JHEP* **1310** (2013) 035, [arXiv:1307.0504 \[hep-th\]](#).
 20. J. Armas, N. A. Obers, and A. V. Pedersen, “Null-Wave Giant Gravitons from Thermal Spinning Brane Probes,” *JHEP* **1310** (2013) 109, [arXiv:1306.2633 \[hep-th\]](#).
 21. J. Gath, J. Hartong, R. Monteiro, and N. A. Obers, “Holographic Models for Theories with Hyperscaling Violation,” *JHEP* **1304** (2013) 159, [arXiv:1212.3263 \[hep-th\]](#).
 22. J. Armas and N. A. Obers, “Relativistic Elasticity of Stationary Fluid Branes,” *Phys.Rev.* **D87** (2013) 044058, [arXiv:1210.5197 \[hep-th\]](#).
 23. J. Armas, J. Gath, and N. A. Obers, “Black Branes as Piezoelectrics,” *Phys.Rev.Lett.* **109** (2012) 241101, [arXiv:1209.2127 \[hep-th\]](#).
 24. J. Armas, T. Harmark, N. A. Obers, M. Orselli, and A. V. Pedersen, “Thermal Giant Gravitons,” *JHEP* **1211** (2012) 123, [arXiv:1207.2789 \[hep-th\]](#).
 25. G. Grignani, T. Harmark, A. Marini, N. A. Obers, and M. Orselli, “Thermal string probes in AdS and finite temperature Wilson loops,” *JHEP* **1206** (2012) 144, [arXiv:1201.4862 \[hep-th\]](#).
 26. J. Armas, J. Camps, T. Harmark, and N. A. Obers, *The Young Modulus of Black Strings and the Fine Structure of Blackfolds*, *JHEP* **1202** (2012) 110, [arXiv:1110.4835](#).
 27. S. Barisch, G. Lopes Cardoso, M. Haack, S. Nampuri, and N. A. Obers, *Nernst branes in gauged supergravity*, *JHEP* **1111** (2011) 090, [[arXiv:1108.0296](#)].
 28. R. Emparan, T. Harmark, V. Niarchos, and N. A. Obers, *Blackfolds in Supergravity and String Theory*, *JHEP* **1108** (2011) 154, [[arXiv:1106.4428](#)].
 29. G. Grignani, T. Harmark, A. Marini, N. A. Obers, and M. Orselli, *Thermodynamics of the hot BIon*, *Nucl.Phys.* **B851** (2011) 462–480, [[arXiv:1101.1297](#)].
 30. J. Armas and N. A. Obers, *Blackfolds in (Anti)-de Sitter Backgrounds*, *Phys.Rev.* **D83** (2011) 084039, [[arXiv:1012.5081](#)].
 31. G. Grignani, T. Harmark, A. Marini, N. A. Obers, and M. Orselli, *Heating up the BIon*, *JHEP* **1106** (2011) 058, [[arXiv:1012.1494](#)].
 32. R. H. Boels, D. Marmiroli, and N. A. Obers, *On-shell recursion in string theory*, *JHEP* **10** (2010) 034, [[arXiv:1002.5029](#)].
 33. R. Emparan, T. Harmark, V. Niarchos, and N. A. Obers, *New horizons for black holes and branes*, *JHEP* **04** (2010) 046, [[arXiv:0912.2352](#)].
 34. R. Emparan, T. Harmark, V. Niarchos, and N. A. Obers, *Essentials of blackfold dynamics*, *JHEP* **03** (2010) 063, [[arXiv:0910.1601](#)].
 35. R. Emparan, T. Harmark, V. Niarchos, and N. A. Obers, *World-volume effective theory for higher-dimensional black holes*, *Phys. Rev. Lett.* **102** (2009) 191301, [[arXiv:0902.0427](#)].
 36. R. Boels, K. J. Larsen, N. A. Obers, and M. Vonk, *MHV, CSW and BCFW: Field theory structures in string theory amplitudes*, *JHEP* **11** (2008) 015, [[arXiv:0808.2598](#)].
 37. N. A. Obers, *Black Holes in higher-dimensional gravity*, *Lect. Notes Phys.* **769** (2009)

- 211–258, [[arXiv:0802.0519](#)].
38. K. J. Larsen and N. A. Obers, *Phases of thermal $\mathcal{N} = 2$ quiver gauge theories*, *JHEP* **01** (2008) 057, [[arXiv:0708.3199](#)].
 39. R. Emparan, T. Harmark, V. Niarchos, N. A. Obers, and M. J. Rodriguez, *The phase structure of higher-dimensional black rings and black holes*, *JHEP* **10** (2007) 110, [[arXiv:0708.2181](#)].
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 41. R. A. Janik, N. A. Obers, and P. B. Ronne, *Factorization of Seiberg-Witten curves with fundamental matter*, *JHEP* **05** (2007) 080, [[hep-th/0701087](#)].
 42. T. Harmark, V. Niarchos, and N. A. Obers, *Instabilities of black strings and branes*, *Class. Quant. Grav.* **24** (2007) R1–R90, [[hep-th/0701022](#)].
 43. T. Harmark, K. R. Kristjansson, N. A. Obers, and P. B. Ronne, *Three-charge black holes on a circle*, *JHEP* **01** (2007) 023, [[hep-th/0606246](#)].
 44. T. Harmark, V. Niarchos, and N. A. Obers, *Stable non-supersymmetric vacua in the moduli space of non-critical superstrings*, *Nucl. Phys.* **B759** (2006) 20–49, [[hep-th/0605192](#)].
 45. T. Harmark and N. A. Obers, *Thermodynamics of the near-extremal NS5-brane*, *Nucl. Phys.* **B742** (2006) 41–58, [[hep-th/0510098](#)].
 46. T. Harmark, V. Niarchos, and N. A. Obers, *Instabilities of near-extremal smeared branes and the correlated stability conjecture*, *JHEP* **10** (2005) 045, [[hep-th/0509011](#)].
 47. T. Harmark and N. A. Obers, *Phases of Kaluza-Klein black holes: A brief review*, [[hep-th/0503020](#)].
 48. T. Harmark and N. A. Obers, *New phases of near-extremal branes on a circle*, *JHEP* **09** (2004) 022, [[hep-th/0407094](#)].
 49. H. Elvang, T. Harmark, and N. A. Obers, *Sequences of bubbles and holes: New phases of Kaluza-Klein black holes*, *JHEP* **01** (2005) 003, [[hep-th/0407050](#)].
 50. T. Harmark and N. A. Obers, *General definition of gravitational tension*, *JHEP* **05** (2004) 043, [[hep-th/0403103](#)].
 51. T. Harmark and N. A. Obers, *Phase structure of black holes and strings on cylinders*, *Nucl. Phys.* **B684** (2004) 183–208, [[hep-th/0309230](#)].
 52. T. Harmark and N. A. Obers, *New phase diagram for black holes and strings on cylinders*, *Class. Quant. Grav.* **21** (2004) 1709, [[hep-th/0309116](#)].
 53. R. A. Janik and N. A. Obers, *$SO(N)$ superpotential, Seiberg-Witten curves and loop equations*, *Phys. Lett.* **B553** (2003) 309–316, [[hep-th/0212069](#)].
 54. O. Ganor, M. B. Halpern, C. Helfgott, and N. A. Obers, *The outer-automorphic WZW orbifolds on $so(2n)$, including five triality orbifolds on $so(8)$* , *JHEP* **12** (2002) 019, [[hep-th/0211003](#)].
 55. M. Bertolini, J. de Boer, T. Harmark, E. Imeroni, and N. A. Obers, *Gauge theory description of compactified pp-waves*, *JHEP* **01** (2003) 016, [[hep-th/0209201](#)].
 56. T. Harmark and N. A. Obers, *Black holes on cylinders*, *JHEP* **05** (2002) 032, [[hep-th/0204047](#)].
 57. M. Bertolini, T. Harmark, N. A. Obers, and A. Westerberg, *Non-extremal fractional branes*, *Nucl. Phys.* **B632** (2002) 257–282, [[hep-th/0203064](#)].
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59. J. de Boer, M. B. Halpern, and N. A. Obers, *The operator algebra and twisted KZ equations of WZW orbifolds*, *JHEP* **10** (2001) 011, [[hep-th/0105305](#)].
60. N. A. Obers and B. Pioline, *Exact thresholds and instanton effects in $D = 3$ string theories*, *JHEP* **07** (2000) 003, [[hep-th/0006088](#)].
61. T. Harmark and N. A. Obers, *Hagedorn behaviour of little string theory from string corrections to NS5-branes*, *Phys. Lett.* **B485** (2000) 285–292, [[hep-th/0005021](#)].
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63. T. Harmark and N. A. Obers, *Phase structure of non-commutative field theories and spinning brane bound states*, *JHEP* **03** (2000) 024, [[hep-th/9911169](#)].
64. T. Harmark and N. A. Obers, *Thermodynamics of spinning branes and their dual field theories*, *JHEP* **01** (2000) 008, [[hep-th/9910036](#)].
65. N. A. Obers and B. Pioline, *Eisenstein series and string thresholds*, *Commun. Math. Phys.* **209** (2000) 275–324, [[hep-th/9903113](#)].
66. N. A. Obers and B. Pioline, *U-duality and M-theory*, *Phys. Rept.* **318** (1999) 113–225, [[hep-th/9809039](#)].
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68. E. Kiritsis and N. A. Obers, *Heterotic/type-I duality in $D < 10$ dimensions, threshold corrections and D-instantons*, *JHEP* **10** (1997) 004, [[hep-th/9709058](#)].
69. A. Gregori et. al., *R^2 corrections and non-perturbative dualities of $N = 4$ string ground states*, *Nucl. Phys.* **B510** (1998) 423–476, [[hep-th/9708062](#)].
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71. M. B. Halpern and N. A. Obers, *New semiclassical nonabelian vertex operators for chiral and nonchiral WZW theory*, *Int. J. Mod. Phys.* **A12** (1997) 4317–4355, [[hep-th/9610081](#)].
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74. E. Kiritsis and N. A. Obers, *A new duality symmetry in string theory*, *Phys. Lett.* **B334** (1994) 67–71, [[hep-th/9406082](#)].
75. I. Antoniadis and N. A. Obers, *Plane gravitational waves in string theory*, *Nucl. Phys.* **B423** (1994) 639–660, [[hep-th/9403191](#)].
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