

Curriculum Vitae of Harmen Warringa

Personal Information

Date of birth November 21, 1978
Place of birth Emmen, The Netherlands
Nationality Dutch
Degrees M.Sc. in theoretical physics
Ph.D. in theoretical physics
Work address Institut für Theoretische Physik, Goethe Universität, Max-von-Laue-Str. 1
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Education

Theoretical physics at the University of Groningen, The Netherlands. Sep. 1997 - Nov. 2001
Master's degree with honor 'cum laude'.

Professional Experience

Alexander von Humboldt fellow and postdoc, Institut für Theoretische Physik, Goethe University, Frankfurt am Main, Germany. Nov. 2008 -
Research associate, Nuclear Theory group, Brookhaven National Laboratory, USA. Oct. 2006 - Sep. 2008
Postdoc, Norwegian University for Science and Technology (NTNU), Trondheim, Norway. May. 2006 - Sep. 2006
Ph.D. student, Free University, Amsterdam, The Netherlands. Dec. 2001 - Apr. 2006
Supervisors: dr. Daniël Boer and prof. dr. Piet Mulders. Thesis: *Thermodynamics of QCD-inspired theories*, defended on February 28, 2006.

Teaching Experience

Teaching assistant Cosmology, Goethe University Frankfurt. 2010-2011
Lecturer on "Topological aspects of the QCD phase transition", International graduate school Bielefeld-Paris, Orsay, France. March 2009
Teaching assistant Quantum Mechanics I and II, Free University Amsterdam. 2002-2004

Grants

Alexander von Humboldt fellowship. Jun. 2009 - May. 2011

Other Professional Experience

- Organizer**, Nuclear and particle physics colloquium, Goethe University Frankfurt. Apr. 2010 -
- Co-organizer**, Nuclear theory seminar, Brookhaven National Laboratory. Oct. 2006- Sep. 2008
Chair since Oct. 2007.
- Organizer**, Theoretical particle physics seminar, Free University Amsterdam. 2003-2005
- Regular referee** for Physical Review Letters (since 2010), Physical Review D (2005), Nuclear Physics A (2009), Physics Letters B (2009), and Physical Review C (2010). 2005-
- Co-organizer** of first 'Eureka Cup', Physics match for high school students. 2005
- Member Physics Education Board**, University of Groningen. 2000-2002
- Member** Dutch Physical Society. 2001-

Knowledge of Languages

Fluent in English, Dutch, and German.

Programming and Computer Skills

Very good programming skills in C, C++, Java, Mathematica, Matlab, PHP, SQL. Very experienced in numerical computations.

Other Experience

- Hobby's: playing piano, reading, hiking, and cycling.
- Boy scouts leader, Scouting Emmen. 1996-2002
- Maintaining my puzzle sites, <http://www.rdzl.nl> and <http://www.pzzls.com>. 1999-

Publications of Harmen Warringa

Articles in journals

- A13 Harmen J. Warringa and Armen Sedrakian *Vortex formation in a rotating two-component Fermi gas*, Phys. Rev. A 84, 023609 (2011), arXiv:1105.3644 [cond-mat.quantum-gas].
- A12 Kenji Fukushima, Dmitri E. Kharzeev and Harmen J. Warringa, *Real-time dynamics of the Chiral Magnetic Effect.*, Phys. Rev. Lett. 104, 212001 (2010), arXiv:1002.2495 [hep-ph].
- A11 Kenji Fukushima, Dmitri E. Kharzeev and Harmen J. Warringa, *Electric-current Susceptibility and the Chiral Magnetic Effect*, Nucl. Phys. A836, 311-336 (2010), arXiv:0912.2961 [hep-ph].
- A10 Dmitri E. Kharzeev and Harmen J. Warringa, *Chiral magnetic conductivity*, Phys. Rev. D80, 034028 (2009), arXiv:0907.5007 [hep-ph].
- A9 Hiroaki Abuki, Tomas Brauner, and Harmen J. Warringa, *Pion condensation in a dense neutrino gas*, Eur. Phys. J. C64:123-131 (2009), arXiv:0901.2477 [hep-ph].
- A8 Kenji Fukushima, Dmitri E. Kharzeev and Harmen J. Warringa, *Chiral magnetic effect*, Phys. Rev. D78, 074033 (2008), arXiv:0808.3382 [hep-ph].
- A7 Dmitri E. Kharzeev, Larry D. McLerran and Harmen J. Warringa, *The effects of topological charge transitions in heavy ion collisions: “Event-by-event \mathcal{P} and \mathcal{CP} violation”*, Nucl. Phys. A803, 227 (2008), arXiv:0711.0950 [hep-ph].
- A6 Kenji Fukushima and Harmen J. Warringa, *Color superconducting matter in a magnetic field*, Phys. Rev. Lett. 100, 032007 (2008), arXiv:0707.3785 [hep-ph].
- A5 Jens O. Andersen, Daniël Boer and Harmen J. Warringa, *The effects of quantum instantons on the thermodynamics of the $\mathbb{C}P^{N-1}$ model*, Phys. Rev. D74, 045028 (2006), hep-th/0602082.
- A4 Harmen J. Warringa, Daniël Boer and Jens O. Andersen, *Color superconductivity vs. pseudoscalar condensation in a three-flavor NJL model*, Phys. Rev. D72, 014015 (2005), hep-ph/0504177.
- A3 Jens O. Andersen, Daniël Boer and Harmen J. Warringa, *Thermodynamics of $O(N)$ sigma models: $1/N$ corrections*, Phys. Rev. D70, 116007 (2004), hep-ph/0408033.
- A2 Harmen J. Warringa, *Heating the $O(N)$ nonlinear sigma model*, Acta Phys. Polon. B34 5857-5866, (2003), hep-ph/0309277.
- A1 Jens O. Andersen, Daniël Boer and Harmen J. Warringa, *Thermodynamics of the $O(N)$ nonlinear sigma model in $(1+1)$ -dimensions*, Phys. Rev. D69, 076006, (2004), hep-ph/0309091.

Contribution to conference proceedings

- B4 Harmen J. Warringa, *The Chiral Magnetic Effect: Measuring event-by-event P - and CP -violation with heavy ion-collisions*, in proceedings of the 44th Rencontres de Moriond on QCD and High Energy Interactions 2009, arXiv:0906.2803 [hep-ph].
- B3 Harmen J. Warringa, *Implications of CP -violating transitions in hot quark matter on heavy ion collisions*, J. Phys. G35, 104012 (2008), arXiv:0805.1384 [hep-ph].

B2 Harmen J. Warringa, *Phase diagrams of the three-flavor NJL model with color superconductivity and pseudoscalar condensation*, in proceedings of the workshop on Extreme QCD, Swansea, Wales, 2-5 Aug. 2005, hep-ph/0512226.

B1 Harmen J. Warringa, *Thermodynamics of the 1+1-dimensional nonlinear sigma model through next-to-leading order in $1/N$* , in proceedings of the 6th conference on Strong and Electroweak Matter 2004, World Scientific Singapore, hep-ph/0408257.

Other publications

C2 Harmen J. Warringa, *The phase diagram of neutral quark matter with pseudoscalar condensates in the color-flavor locked phase*, (2006), hep-ph/0606063.

C1 Harmen J. Warringa, *Thermodynamics of QCD-inspired theories*, Ph.D. thesis, Free University Amsterdam, (2006), hep-ph/0604105.

The following publications were part of my doctoral thesis

A1, A2, A3, A4, A5, B1, B2

Citation statistics

According to INSPIRE (<http://www.inspirebeta.net>) on 13 Sep. 2011.

Total number of citations: 644.

Average number of citations per published paper: 43.

H-index: 11.

Talks by Harmen Warringa

- *Vortex formation in a rotating two-component Fermi gas*, TORIC Network meeting, Heraklion, Greece, September 6, 2011.
- *Vortex formation in a rotating two-component Fermi gas*, Color-superconductivity Seminar, Institute for Nuclear Physics, TU Darmstadt, Germany, June 16, 2011.
- *The Chiral Magnetic Effect*, Spring meeting German Physical Society (DPG), Münster, Germany, March 24, 2011.
- *The Chiral Magnetic Effect*, Workshop The Many faces of QCD, Ghent, Belgium, November 3, 2010.
- *P- and CP-odd effects in hot and dense matter*, XL International Symposium on Multiparticle Dynamics, Antwerpen, Belgium, September 24, 2010.
- *Chiral Magnetic Effect*, **Plenary talk** at IX conference on Quark confinement and the hadron spectrum, Madrid, Spain, September 1, 2010.
- *Dynamics of the chiral magnetic effect*, Workshop on Extreme QCD (XQCD), Bad Honnef, Germany, June 22, 2010.
- *Summary talk of the workshop: P- and CP-odd effects in hot and dense matter*, Workshop on Saturation, the Color Glass Condensate and Glasma, Brookhaven National Laboratory, USA, May 10, 2010.
- *Chiral Magnetic Effect*, Workshop on P- and CP-odd effects in hot and dense matter, Brookhaven National Laboratory, USA, April 26, 2010.
- *P- and CP-odd effects in heavy ion collisions*, KVI seminar, University of Groningen, The Netherlands, April 6, 2010.
- *P- and CP-odd effects in QCD in extreme conditions*, Workshop on Extreme QCD (EQCD), Trondheim, Norway, February 26, 2010.
- *P- and CP-odd effects in heavy ion collisions*, NIKHEF Colloquium, Amsterdam, The Netherlands, February 12, 2010.
- *P- and CP-odd effects in heavy ion collisions*, Hirschegg 2010, Workshop on nuclear matter at high density, January 22, 2010.
- *How to find topological charge in the Quark-Gluon plasma*, Workshop Quarks, hadrons and the phase diagram of QCD, St. Goar, Germany, August 31, 2009.
- *Implications of topological charge fluctuations on heavy ion collisions*, Workshop Quark gluon plasma meets cold atoms, Episode II, Riezlern, Austria, August 6, 2009.
- *P- and CP-odd effects in hot QCD*, Nuclear physics seminar, Brookhaven National Laboratory, USA, June 23, 2009.
- *Implications of topological charge fluctuations on heavy ion collisions*, 10th workshop on non-perturbative QCD, Paris, France, June 12, 2009.

- *The Chiral Magnetic Effect: measuring event-by-event P- and CP-violation with heavy ion collisions*, Rencontres de Moriond: QCD and High Energy Interactions, La Thuile, Italy, March 20, 2009.
- *Pion condensation with neutrinos*, Hirscheegg 2009, Workshop on nuclear matter at high density, Hirscheegg, Austria, January 19, 2009.
- *How to find topological charge in the Quark-Gluon plasma*, Theory seminar, Physics Department, University of Connecticut, Storrs CT, USA September 22, 2008.
- *The Chiral Magnetic Effect*, Riken Lunch Seminar, BNL, Upton NY, USA, September 11, 2008.
- *The Chiral Magnetic Effect*, Strong and Electroweak Matter Conference, Amsterdam, The Netherlands, August 26, 2008.
- *Implications of CP-violating transitions in hot quark matter*, International Conference on High-Energy Physics, Philadelphia, PA, USA, July 31, 2008.
- *Implications of CP-violating transitions in hot quark matter on heavy ion collisions*, Theoretical physics seminar, Iowa State University, Ames, IO, USA, February 28, 2008.
- *Implications of CP-violating transitions in hot quark matter on heavy ion collisions*, Theoretical physics seminar, Iowa State University, Ames, IO, USA, February 28, 2008.
- *Implications of CP-violating transitions in hot quark matter on heavy ion collisions*, Theoretical physics seminar, Western Illinois University, Macomb IL, USA, February 26, 2008.
- *Color superconducting matter in compact stars with a magnetic field*, Theoretical physics seminar, Western Illinois University, Macomb IL, USA, February 25, 2008.
- *Implications of CP-violating transitions in hot quark matter on heavy ion collisions*, **Invited plenary talk** at Quark Matter 2008, Jaipur, India, February 5, 2008.
- *Implications of CP-violating transitions in hot quark matter on heavy ion collisions*, Theory seminar, Free University Amsterdam, Amsterdam, The Netherlands, January 7, 2008.
- *Implications of CP-violating transitions in hot quark matter on heavy ion collisions*, Theory seminar, KVI, Groningen, The Netherlands, January 4, 2008.
- *Implications of CP-violating transitions in hot quark matter on heavy ion collisions*, Riken Lunch seminar, BNL, Upton NY, USA, December 6, 2007.
- *Color superconducting matter in compact stars with a magnetic field*, Theoretical physics seminar, Washington University in St. Louis, St. Louis, Missouri, USA, October 11, 2007.
- *Color superconducting matter in a magnetic field*, Nuclear theory seminar, Stony Brook University, Stony Brook, NY, USA, September 18, 2007.
- *The phase diagram of neutral quark matter from a NJL model perspective*, RIKEN lunch seminar, Brookhaven National Laboratory, Upton NY, USA, December 7, 2006.
- *The phase diagram of high density matter*, Theoretical physics seminar, Vrije Universiteit, Amsterdam, September 21, 2006.

- *The phase diagram of high density matter*, Theoretical physics seminar, Norwegian University of Science and Technology, Trondheim, Norway, August 31, 2006.
- *Compact stars and the phase diagram of quark matter*, Theoretical physics seminar, Norwegian University of Science and Technology, Trondheim, Norway, February 6, 2006.
- *QCD and quark stars*, 6th National Astroparticle Meeting, Amsterdam, February 3, 2006.
- *Color superconductivity vs. pseudoscalar condensation in a three-flavor NJL model*, XQCD workshop, Swansea UK, August 2, 2005.
- *Thermodynamics of QCD inspired theories*, Nuclear theory seminar Stony Brook University, Stony Brook NY, December 15, 2004
- *Thermodynamics of QCD inspired theories*, Nuclear theory seminar Brookhaven National Laboratory, Upton NY, December 10, 2004
- *Thermodynamics of the 1+1-dimensional nonlinear sigma model through next-to-leading order in $1/N$* , Strong and Electroweak matter 2004, Helsinki, Finland, June 16, 2004.
- *Thermodynamics of the nonlinear sigma model*, National high energy theory seminar, Amsterdam, February 20, 2004.
- *Heating the nonlinear sigma model*, Nuclear and High-energy Physics fall meeting of the Dutch Physical Society, Lunteren, October 10, 2003.
- *Heating the $O(N)$ nonlinear sigma model*, Krakow school of theoretical physics, Zakopane, June 5, 2003.
- *Atomic parity violation and electric dipole moments in a left-right symmetric model*, Theory seminar University of Groningen, Groningen, January 14, 2002.