

Curriculum Vitae

1 Full name and date

Name, surnames: **Rischke, Dirk–Hermann**

Gender: male

Date: **27.10.2020**

2 Date and place of birth, nationality, current residence

Current work address: Institut für Theoretische Physik, Johann Wolfgang Goethe-Universität,
Max-von-Laue-Str. 1, D-60438 Frankfurt am Main, Germany,
phone: +49 (69) 798-47862, fax: +49 (69) 798-47878,
Email: drischke@itp.uni-frankfurt.de

3 Education and degrees awarded

PhD: Goethe University Frankfurt am Main, Physics, 04.02.1993

Diploma: Goethe University Frankfurt am Main, Physics, 05.07.1988

Habilitation: Theoretical Physics, Goethe University Frankfurt am Main, 18.06.1997

4 Other education and training, qualifications and skills – N/A

5 Linguistic skills

Mother tongue: German

Other tongues: English (fluent), French (basic)

6 Current Position

Full Professor for Theoretical Physics, Goethe University Frankfurt am Main, since 08.01.2001

7 Previous work experience

Employment relations:

| | | |
|--|--|-------------------|
| Associate Scientist and RHIC Physics fellow | Nuclear Theory Group and RIKEN–BNL Research Center, Brookhaven National Laboratory, Upton, New York, U.S.A. | 10/2000 – 01/2001 |
| RIKEN–BNL Fellow | RIKEN–BNL Research Center, Brookhaven National Laboratory, Upton, New York, U.S.A. | 09/1997 – 09/2000 |
| Research Associate and Visiting Assistant Professor | Department of Physics, Duke University, Durham, North Carolina, U.S.A. | 09/1996 – 08/1997 |
| Visiting Postdoctoral Research Scientist | Physics Department, Columbia University, New York, U.S.A. | 01/1994 – 08/1996 |
| Scientific Assistant | Institute for Theoretical Physics, Goethe University Frankfurt am Main, Germany | 01/1993 – 12/1993 |
| Scientific Assistant | Physikalisches Institut, Goethe University Frankfurt am Main, Germany | 02/1992 – 12/1992 |
| Scientific Assistant | Institute for Theoretical Physics, Goethe University Frankfurt am Main, Germany | 08/1988 – 12/1991 |

Secondary occupations, additional work experience:

| | | |
|------------------------------|--|-------------------|
| Senior Fellow | Frankfurt Institute for Advanced Studies | 11/2008 – 10/2013 |
| Guest Professor | University of Science and Technology of China, Hefei | 02/2007 – |
| Guest Professor | Central China Normal University, Wuhan | 04/2008 – |
| Adjunct Fellow | Frankfurt Institute for Advanced Studies | 08/2004 – 10/2008 |
| Privatdozent | Goethe University Frankfurt am Main | 18.06.1997 – |
| Visiting Assistant Professor | Yale University, New Haven, Connecticut, U.S.A. | 01/1998 – 12/1998 |

8 Research funding, leadership, supervision**Research Grants:**

| No. | Title | EUR | Time Period |
|---------------------|---|--------------|-------------------|
| GSI/OFRIS | Strong-interact. matter at high baryon dens. | 137.000,00 | 01/2004 – 12/2006 |
| VH-VI-041 | Dense hadr. matter and QCD phase trans.'s | 107.200,00 | 04/2004 – 12/2006 |
| EU/CT 2004-50607 | Strong-interact. matter in ultrarel. HIC's | 25.000,00 | 04/2004 – 03/2008 |
| DFG/RI 118172-1 | Instab.'s in supercond. & superfluid matter | 125.100,00 | 01/2006 – 01/2008 |
| DFG/UNG 113/174/0-1 | Strongly interacting matter | 47.000,00 | 04/2006 – 03/2009 |
| BMBF/06FY153 | Di-jet suppression | 76.400,00 | 07/2006 – 06/2009 |
| BMBF/06FY163 | Hadrons in hot & dense nuclear matter | 162.000,00 | 07/2006 – 06/2009 |
| GSI/FRISCH | Chiral phase transition | 169.400,00 | 01/2007 – 10/2010 |
| GSI/EMMI | EMMI | 554.000,00 | 04/2008 – 03/2013 |
| DFG/445 SUA-113/280 | Space-time evolution of nuclear matter | 30.000,00 | 06/2008 – 12/2012 |
| BMBF/06FY9092 | Dissipative relativistic fluid dynamics | 154.000,00 | 07/2009 – 09/2012 |
| BMBF/06FY9091 | Exotic states and phases | 88.500,00 | 07/2009 – 06/2013 |
| BMBF/06FY7106 | Dissipative relativistic fluid dynamics | 471.000,00 | 07/2012 – 06/2015 |
| DFG/RI 1181/6-1 | Baryons in an eff. chiral mod. w. 3 quark fl.'s | 162.600,00 | 09/2014 – 08/2016 |
| BMBF/05P15RFCA1 | ALICE at High Rate | 389.664,00 | 07/2015 – 06/2018 |
| DFG/CRC-TR 211 | Strong-interact. matter under extr. cond.'s | 7.390.200,00 | 07/2017 – 06/2021 |
| BMBF/05P18RFCA1 | Ausbau von ALICE am LHC | 466.096,00 | 07/2018 – 06/2021 |
| BMBF/05P18RFCA | Ausbau von CBM bei FAIR | 99.144,00 | 07/2018 – 06/2021 |

Leadership:

| | |
|--|-------------------|
| Leader of a research group at the Institute for Theoretical Physics, Goethe University | 01/2001 – |
| Spokesperson of the Virtual Institute VH-VI-041 “Dense Hadronic Matter and QCD Phase Transitions” of the Helmholtz Association | 05/2005 – 09/2006 |
| Chairman (“Dekan”) of the Department of Physics, Goethe University | 10/2008 – 09/2010 |
| Chairman of the Board of Directors of the Frankfurt Institute for Advanced Studies | 07/2009 – 12/2011 |
| Spokesperson of the DFG-funded Collaborative Research Center CRC-TR 211 “Strong-interaction matter under extreme conditions” | 07/2017 – 06/2021 |

Supervision of post-docs:

1. Qun Wang* (now professor at USTC, Hefei, China) 2000 – 2005
2. Azwinndini Muronga (now Dean of Science at Nelson Mandela U., Port Elizabeth, South Africa) 2002 – 2004
3. Igor A. Shovkovy (now professor at ASU, Mesa, U.S.A.) 2002 – 2006
4. Mei Huang * (now professor at IHEP/CAS, Beijing, China) 2003 – 2004
5. Defu Hou* (now professor at CCNU, Wuhan, China) 2003 – 2004
6. Tomoi Koide* (now professor at UFRJ, Rio de Janeiro, Brasil) 2003 – 2004, 2008 – 2010
7. Agnes Mocsy* (now professor at Pratt U., New York, U.S.A.) 2003 – 2005
8. Ralf Hofmann 2004 – 2005
9. Masakiyo Kitazawa (now professor at Osaka U., Japan) 2005 – 2006
10. Osamu Kiriya 2005 – 2008

(* indicates Humboldt fellow)

Supervision of post-docs (continued):

| | | |
|-----|--|--------------------------|
| 11. | Tomas Brauner* (now professor at U. Stavanger) | 2006 – 2010 |
| 12. | Giorgio Torrieri* (now professor at U. Estadual de Campinas, Brasil) | 2006 – 2013 |
| 13. | Hiroaki Abuki* (now professor at Tokyo U. of Science, Japan) | 2008 – 2009 |
| 14. | Harri Niemi | 2008 – 2011, 2014 – 2017 |
| 15. | Xu-Guang Huang (now professor at Fudan U., Shanghai, China) | 2008 – 2012 |
| 16. | Harmen Warringa* | 2008 – 2012 |
| 17. | Elena Gubankova | 2010 – 2012 |
| 18. | Lianyi He* (now professor at Tsinghua U., Beijing, China) | 2010 – 2013 |
| 19. | Daniel Fernandez-Fraile* | 2012 – 2014 |
| 20. | Francesco Giacosa (now professor at Kielce U., Poland) | 2005 – 2014 |
| 21. | Armen Sedrakian (now professor at Wroclaw U., Poland) | 2007 – 2016 |
| 22. | Pasi Huovinen (now post-doc at Inst. of Physics Belgrade, Serbia) | 2009 – 2015 |
| 23. | Sixue Qin* (now professor at Chongqing U., China) | 2012 – 2014 |
| 24. | Khaled Teilab | 2012 – 2017 |
| 25. | Victor Roy* (now ass. professor at NISER, India) | 2014 – 2016 |
| 26. | Shi Pu* | 2014 – 2016 |
| 27. | Miklos Zetyenyi | 2014 – 2016 |
| 28. | Daisuke Sato* | 2016 – 2018 |
| 29. | Stefan Rechenberger | 2016 – 2018 |
| 30. | Enrico Speranza | 2017 – 2020 |
| 31. | Leonardo Tinti (now professor at Kielce U., Poland) | 2017 – 2020 |
| 32. | Etele Molnar (now research associate at ELI, Romania) | 2017 – 2018 |
| 33. | Ralf-Arno Tripolt | 2018 – 2020 |
| 34. | Lucia Oliva* | 2019 – |
| 35. | Victor Ambrus* | 2020 – |
| 36. | Peter Lowdon | 2020 – |

(* indicates Humboldt fellow)

Diploma and Master theses supervised:

| | | | | |
|-----|---------------------|--|-------------------|------|
| 1. | Dirk Röder | “Chirale Symmetrierestauration in linearen Sigma-Modellen mit $U(N_f)_r \times U(N_f)_\ell$ -Symmetrie” | Goethe University | 2003 |
| 2. | Stefan Rüster | “Farbsupraleitung in Quarksternen” | Goethe University | 2003 |
| 3. | Barbara Betz | “Fermionische Quasiteilchenanregungen in Normal- und Supraleitern” | Goethe University | 2005 |
| 4. | Stefan Strüber | “Selbstkonsistente In-Medium-Massen leichter, skalarer und vektorieller Mesonen in einem linearen σ -Modell” | Goethe University | 2005 |
| 5. | Denis Parganlija | “Pion-Pion-Streuung in einem geeichten linearen Sigma-Modell mit chiraler $U(2)_R \times U(2)_L$ -Symmetrie” | Goethe University | 2006 |
| 6. | Martin Grahl | “The $O(N = 2)$ model in polar coordinates at nonzero temperature” | Goethe University | 2009 |
| 7. | Achim Heinz | “Der Einfluss von Tetraquarkzuständen auf den chiralen Phasenübergang” | Goethe University | 2009 |
| 8. | Elina Seel | “Darstellungsabhängigkeit der $O(2)$ σ -Modelle bei endlichen Temperaturen” | Goethe University | 2009 |
| 9. | Stanislaus Janowski | “Phänomenologie des Dilatons in einem chiralen Modell mit (Axial-) Vektormesonen” | Goethe University | 2010 |
| 10. | Anja Habersetzer | “Spectral Densities of the τ Lepton in a Global $U(2)_L \times U(2)_R$ Linear Sigma Model with Electroweak Interaction” | Goethe University | 2011 |

Diploma and Master theses supervised (continued):

| | | | | |
|-----|-------------------|--|-------------------|------|
| 11. | Tim Kozłowski | “Expansionssimulation eines unitären Fermi-Gases mittels idealer Fluidodynamik” | Goethe University | 2012 |
| 12. | Thilo Kalkbrenner | “ $\beta = \dots?$ Hydrodynamische Aspekte eines stark wechselwirkenden entarteten Fermigas” | Goethe University | 2013 |
| 13. | Lisa Olbrich | “Phenomenology of baryons in the extended linear sigma model” | Goethe University | 2014 |
| 14. | Jürgen Eser | “Vector mesons in the linear sigma model within the functional renormalization group approach” | Goethe University | 2015 |
| 15. | Florian Divotgey | “The low-energy constants of the extended linear sigma model at tree-level” | Goethe University | 2015 |
| 16. | Phillip Lakaschus | “Exotic scalar mesons in the extended linear sigma model” | Goethe University | 2017 |
| 17. | Jonas Schneitzer | “The Low-Energy Constants of the 3-Flavour Extended Linear Sigma Model at Tree Level” | Goethe University | 2018 |
| 18. | Nora Weickgenannt | “Kinetic theory for massive spin-1/2 particles from the Wigner-function formalism” | Goethe University | 2019 |
| 19. | Taylan Erdogan | “FRG-Zugang zum QM-Modell mit Spiegel-Nukleonen und dem ω -Meson” | Goethe University | 2019 |
| 20. | Abdol Sabor Salek | “Functional Renormalisation Group Approach to the Current-Quark Mass Dependence of Criticality within the Two-Flavour Quark-Meson Model” | Goethe University | 2019 |
| 21. | Niklas Cichutek | “Functional Renormalization Group Approach to the Quark-Meson-Diquark Model in Two-Color QCD” | Goethe University | 2020 |
| 22. | Lutz Kiefer | “Inhomogeneous condensation in the finite-more regularized Gross–Neveu model” | Goethe University | 2020 |

PhD theses supervised:

| | | | | |
|-----|--------------------|---|-------------------|------|
| 1. | Jonathan Lenaghan | “Effective theories for the chiral symmetry restoring phase transition in quantum chromodynamics” | Yale University | 2000 |
| 2. | Jörg Ruppert | “Selbstkonsistente Beschreibung stark wechselwirkender Materie bei endlichen Temperaturen” | Goethe University | 2003 |
| 3. | Andreas Schmitt | “Spin-one color superconductivity in cold and dense quark matter” | Goethe University | 2004 |
| 4. | Christian Beckmann | “Self-consistent calculations of hadron properties at non-zero temperature” | Goethe University | 2005 |
| 5. | Philipp Reuter | “A general effective action for quark matter and its application to color superconductivity”, | Goethe University | 2005 |
| 6. | Dirk Röder | “Selfconsistent calculations of mesonic properties at nonzero temperature” | Goethe University | 2005 |
| 7. | Stefan Ruster | “The phase diagram of neutral quark matter” | Goethe University | 2006 |
| 8. | Hossein Malekzadeh | “Three-flavor color superconductivity” | Goethe University | 2007 |
| 9. | Jorge Noronha | “The role of gauge fields in cold and dense quark matter” | Goethe University | 2007 |
| 10. | Basil Sa’d | “Bulk viscosity of spin-one color superconductors” | Goethe University | 2008 |
| 11. | Barbara Betz | “Jet propagation and Mach-cone formation in (3+1)-dimensional ideal hydrodynamics” | Goethe University | 2009 |
| 12. | Susanna Gallas | “Das Nukleon und sein chiraler Partner im Vakuum und in dichter Kernmaterie” | Goethe University | 2010 |
| 13. | Tian Zhang | “Study of QCD-like theories at nonzero temperatures and densities” | Goethe University | 2012 |

PhD theses supervised (continued):

| | | | | |
|-----|---------------------|---|------------------------|------|
| 14. | Denis Parganlija | “Quarkonium phenomenology in vacuum” | Goethe University | 2012 |
| 15. | Gabriel Denicol | “Microscopic foundations of relativistic dissipative fluid dynamics” | Goethe University | 2012 |
| 16. | Mara Grahl | “Low-energy effective models for two-flavor QCD and the universality hypothesis” | Goethe University | 2014 |
| 17. | Achim Heinz | “QCD under extreme conditions: inhomogeneous condensation” | Goethe University | 2014 |
| 18. | Elina Seel | “Effective theories for QCD at nonzero temperature” | Goethe University | 2014 |
| 19. | Walaa Eshraim | “Phenomenology of a pseudoscalar glueball and charmed mesons” | Goethe University | 2015 |
| 20. | Stanislaus Janowski | “Phenomenology of glueballs and scalar-isoscalar quarkonia within an effective hadronic model of QCD” | Goethe University | 2015 |
| 21. | Xin-li Sheng | “Wigner Function for Spin-1/2 Fermions in Electromagnetic Fields” | Goethe U. & USTC Hefei | 2019 |
| 22. | Jürgen Eser | “Momentum-dependent Pion Self-interactions from Quantum Fluctuations” | Goethe University | 2020 |
| 23. | Florian Divotgey | “Niederenergiestudien Effektiver Modelle Stark Wechselwirkender Systeme” | Goethe University | 2020 |

9 Merits in teaching and pedagogical competence

Teaching Experience:

Basic courses in Theoretical Physics:

| | |
|---|--|
| Newtonian Mechanics | winter 2002/03, 2009/10, summer 2013, and winter 2016/17 |
| Analytical Mechanics and Special Relativity | summer 2003, 2010, and 2017 |
| Electrodynamics | winter 2003/04 and 2010/11 |
| Introductory Quantum Mechanics | summer 2004 and 2011 |
| Advanced Quantum Mechanics | winter 2004/05, summer 2012, 2015, and 2016 |
| Statistical Mechanics | summer 2005 and winter 2011/12 |

Advanced Courses in Theoretical Physics:

| | |
|--------------------------------|---|
| Relativistic Quantum Mechanics | winter 2001/02 |
| Quantum Field Theory I | summer 2002, winter 2005/06, 2007/08, 2013/14, 2017/18, and 2020/21 |
| Quantum Field Theory II | summer 2006, 2008, 2014, and 2018 |
| Statistical Field Theory | summer 2001, winter 2008/09, winter 2014/15, and winter 2018/19 |
| General Relativity | winter 2019/20 |
| Cosmology | summer 2020 |

10 Awards, prizes, honors

| | |
|---|-------------------|
| Diploma scholarship from the German National Academic Foundation | 02/1985 – 07/1988 |
| PhD scholarship from the German National Academic Foundation | 01/1991 – 03/1993 |
| Feodor-Lynen scholarship from the Alexander von Humboldt Foundation | 01/1994 – 12/1995 |
| Member of the Scientific Society at Goethe University | 07/2002 – |
| Nominee for the 1822 University Prize for Excellence in Teaching | 07/2005 |
| Member of the Academia Europaea | 10/2013 – |

11 Other academic merits

Opponent at PhD defenses:

Graz U., Yale U., U. of Jyväskylä, Vrije U. Amsterdam, Charles U. Prague, and U. Trondheim

Referee for international peer-reviewed journals:

Physical Review, Nuclear Physics, Review of Modern Physics, Annals of Physics, Journal of Physics, and others

Member of editorial boards and steering committees:

| | |
|--|-------------|
| Editorial board of Journal of Physics G | 2000 – 2004 |
| Editorial board of Nuclear Physics A | 2001 – 2010 |
| Working group “Phases of Nuclear Matter” for NuPECC Long-Range Plan | 2002 |
| ECT* Joint Financial Review Committee (representing Germany) | 2013 – |
| ECT* Scientific Advisory Board | 2016 – 2019 |
| Working group “Properties of Strong-Interaction Matter” for NuPECC Long-Range Plan | 2016 |

Reviewer for search committees:

U. Bielefeld, Technical U. Darmstadt, U. Heidelberg, and U. Giessen

Reviewer for tenure-track and promotion procedures:

Baruch College (City U. of New York), McGill U. (Montreal), U. of Alabama (Tuscaloosa), U. of Rochester (New York), Vanderbilt U. (Tennessee), and U. of Washington (St. Louis)

Reviewer for grant proposals:

DFG, DAAD, Alexander von Humboldt Foundation (Germany), EPSRC-STFC (U.K.), FWF (Austria), SNF (Switzerland), GACR (Czechia), DOE, NSF (U.S.A.), and NSERC (Canada)

Reviewer for research projects (interim review):

Helsinki Institute of Physics (Finland), 2004 and 2010

Member of review boards for funding agencies:

| | |
|--|-------------|
| Engineering and Physical Sciences Research Council (EPSRC) Peer Review College | 2005 – 2009 |
| Review Committee “Hadron and Nuclear Physics” of the Federal Ministry for Education and Research (BMBF) | 2012 – 2015 |

Invited talks:

I have given more than 50 invited talks at international workshops and conferences, among them:

| | |
|--|------|
| plenary talk “What is the structure of the quark–gluon plasma near the critical temperature ?” at the Fifth Int. Conf. on Nucleus–Nucleus Collisions, Taormina, Sicily | 1994 |
| plenary talk “Hydrodynamics and collective behaviour in relativistic nuclear collisions” at “Quark Matter ’96”, Heidelberg, Germany | 1996 |
| plenary talk “Quark–Gluon Plasma” at the DNP 2000 meeting, Williamsburg, Virginia, U.S.A. | 2000 |
| plenary talk “Remarks on the extraction of freeze-out parameters” at “Quark Matter 2001”, SUNY Stony Brook, U.S.A. | 2001 |
| plenary talk “A general effective theory for dense quark matter” at “Strong and Electroweak Matter 2004”, Helsinki, Finland | 2004 |
| plenary talk “From kinetic theory to dissipative fluid dynamics” at the Int. Conference on “Strangeness in Quark Matter” SQM 2008, Tsinghua University, Beijing, China | 2008 |
| “Theory Summary” at the Int. Conference on “Strangeness in Quark Matter” SQM 2009, Buzios, Brasil | 2009 |
| Co-Rapporteur on “Global Variables and Correlations” at “Quark Matter 2012”, Washington, D.C., U.S.A. | 2012 |

Organization of Conferences:

I have participated in organizing 30 international workshops and conferences, among them:

| | |
|---|------|
| co-organizer of “RHIC98 Summer Study”, Brookhaven National Laboratory, U.S.A. | 1998 |
| member of Local Organizing and International Advisory Committee of “Strange Quark Matter 2001”, Goethe University, Frankfurt | 2001 |
| co-organizer of the INT program “The first three years of heavy-ion physics at RHIC”, Institute for Nuclear Theory, University of Washington, Seattle, U.S.A. | 2003 |

Organization of Conferences (continued):

| | |
|--|------------------------------|
| member of the International Advisory Committee of “Strange Quark Matter 2003”, Atlantic Beach, North Carolina, U.S.A. | 2003 |
| member of the International Advisory Committee of the 5th “International Conference on Physics and Astrophysics of the Quark-Gluon Plasma” (ICPA-QGP 2005), Kolkata, India | 2005 |
| co-chair of the Extreme Matter Institute (EMMI) workshop “Quark-Gluon Plasma Meets Cold Atoms”, GSI Darmstadt, Germany | 2008 |
| co-chair of the Extreme Matter Institute (EMMI) workshop “Quark-Gluon Plasma Meets Cold Atoms: Episode II”, Riezlern, Kleinwalsertal, Austria | 2009 |
| co-chair of “DM 2010”, Int. Workshop on High Density Nuclear Matter, Cape Town, South Africa | 2010 |
| chair of the Extreme Matter Institute (EMMI) workshop “Quark-Gluon Plasma Meets Cold Atoms: Episode III”, Hirschegg, Kleinwalsertal, Austria | 2012 |
| member of the International Advisory Committee of the series “International Conference on the Initial Stages in High-Energy Nuclear Collisions” | 2013, 2014, 2016, 2017, 2021 |
| member of the International Advisory Committee of the XXVI “International Conference on Ultrarelativistic Heavy-Ion Collisions” (QM2017), Chicago, U.S.A. | 2017 |
| co-organizer of the ECT* workshop “Functional Methods in Hadron and Nuclear Physics”, ECT*, Trento, Italy | 2017 |
| member of the International Advisory Committee of the XXVII “International Conference on Ultrarelativistic Heavy-Ion Collisions” (QM2018), Venice, Italy | 2018 |
| co-organizer of the ECT* Doctoral Training Program ”QCD under Extreme Conditions”, ECT*, Trento, Italy | 2018 |
| co-organizer of the Extreme Matter Institute (EMMI) workshop “Functional Methods in Strongly Correlated Systems”, Hirschegg, Kleinwalsertal, Austria | 2019 |
| member of the International Advisory Committee of the XXVIII “International Conference on Ultrarelativistic Heavy-Ion Collisions” (QM2019), Wuhan, China | 2019 |
| co-organizer of the ECT* (online) workshop “Spin and Hydrodynamics”, ECT*, Trento, Italy | 2020 |
| member of the International Advisory Committee of the XXIX “International Conference on Ultrarelativistic Heavy-Ion Collisions” (QM2021), Cracow, Poland | 2021 |

12 Scientific and societal impact of research**Research interests:**

Fluid dynamics for relativistic heavy-ion collisions

Phase transitions in strongly interacting matter

Hadrons in the vacuum and in hot and dense strongly interacting matter

Publications:

211 citable publications, 167 peer-reviewed articles, 11700 citations (source: HEP-inspire)
1 paper over 500 citations, 7 papers over 250 citations, 34 papers over 100 citations, 71 papers over 50 citations, average no. of citations: 55.5, h-index: 59

Ten most cited original publications:

1. D.H. Rischke: “The Quark-Gluon Plasma in Equilibrium” (review article), Prog. Part. Nucl. Phys. 52 (2004) 197, *513 citations*
2. O. Scavenius, A. Mocsy, I.N. Mishustin, D.H. Rischke: “Chiral phase transition within effective models with constituent quarks”, Phys. Rev. C 64 (2001) 045202, *352 citations*
3. G.S. Denicol, H. Niemi, E. Molnar, D.H. Rischke: “Derivation of transient relativistic fluid dynamics from the Boltzmann equation”, Phys. Rev. D 85 (2012) 114047, *343 citations*
4. D.H. Rischke, M. Gyulassy: “The time-delay signature of quark-gluon plasma formation in relativistic heavy-ion collisions”, Nucl. Phys. A 608 (1996) 479, *304 citations*
5. D.H. Rischke, M.I. Gorenstein, H. Stöcker, W. Greiner: “Excluded volume effect for the nuclear matter equation of state”, Z. Phys. C 51 (1991) 485, *263 citations*
6. S.B. Rüster, V. Werth, M. Buballa, I.A. Shovkovy, D.H. Rischke: “The Phase diagram of neutral quark matter: Self-consistent treatment of quark masses”, Phys. Rev. D 72 (2005) 034004, *255 citations*
7. D.H. Rischke, S. Bernard, J.A. Maruhn: “Relativistic hydrodynamics for heavy ion collisions. 1. General aspects and expansion into vacuum”, Nucl. Phys. A 595 (1995) 346, *241 citations*
8. R.D. Pisarski, D.H. Rischke: “Color superconductivity in weak coupling”, Phys. Rev. D 61 (2000) 074017, *239 citations*
9. H. Niemi, G.S. Denicol, P. Huovinen, E. Molnar, D.H. Rischke: “Influence of the shear viscosity of the quark-gluon plasma on elliptic flow in ultrarelativistic heavy-ion collisions”, Phys. Rev. Lett. 106 (2011) 212302, *232 citations*
10. G.S. Denicol, T. Koide, D.H. Rischke: “Dissipative relativistic fluid dynamics: a new way to derive the equations of motion from kinetic theory”, Phys. Rev. Lett. 105 (2010) 162501, *210 citations*

13 Positions of trust in society and other societal merits

Personal tutor for the German National Academic Foundation 2003 – 2019
Member of the Steering Committee of the ”Stiftungsgastprofessur
Wissenschaft und Gesellschaft” (sponsored by Deutsche Bank) 2014 –