



[ORCID ID: 0000-0002-3865-7265](https://orcid.org/0000-0002-3865-7265)

CAREER

2022– Professor, Aalborg University
2018–2022 Professor, Aarhus University (Honorary professor since 2016).
2010–2018 Staff /Visiting Prof./Professor, Uni. of Bonn /Max Planck Inst. for Radio Astro.
2007–2010 External Associate Professor, Niels Bohr Institute, University of Copenhagen.
2003–2010 International Baccalaureate (IB) teacher in physics/math at Herlufsholm Skole.
2002–2003 Assistant Professor, Niels Bohr Institute, University of Copenhagen.
2000–2002 Research Fellow, NORDITA (Nordic Institute for Theoretical Physics).
1997–2000 Marie Curie Fellow, University of Amsterdam (individual EU research grant).

EDUCATION

2015 Dr. rer.nat.habil. (Habilitation and Privatdozent), University of Bonn.
2002–2003 Diploma in Higher Education Teaching Practice, University of Copenhagen.
1993–1997 Ph.D., Aarhus University (Denmark) / ATNF-CSIRO, Sydney (Australia),
Astrophysics: “*Formation and Evolution of Binary Millisecond Pulsars*”.
1988–1993 M.Sc., Aarhus University, Astrophysics (minor degree in History of Science).
1984–1988 Baccalaureate, Silkeborg Gymnasium / High School Exchange Student, USA.

RESEARCH INTERESTS

Physics of Compact Objects (Neutron Stars, White Dwarfs, Black Holes), Gravitational Waves, X-ray Binaries, Pulsars, Stellar and Binary Evolution, Supernovae, Population Synthesis.

LONG-TERM RESEARCH VISITS

Korean Institute for Advanced Study, Seoul, Korea (2001).
Physics Dept., Stony Brook, New York, USA (1999, 2000).
Raman Research Institute, Bangalore, India (1999).
ATNF-CSIRO Sydney, Australia (1993, 1994, 1995–1996).

PUBLICATIONS

Peer reviewed journal articles: > 100 papers (30 Letters, mostly 1st or 2nd author), published in *Science*, *Nature*, *Physical Review Letters*, *The Astrophysical Journal* (+ *Letters*), *MNRAS* (+ *Letters*), *Astronomy & Astrophysics* (+ *Letters*), *A&ARv* and *New Astronomy*.
Textbook: “*Physics of Binary Star Evolution*”, 864 pages, Princeton Uni. Press, 2023
Citations: [Google Scholar](https://scholar.google.com/citations?user=...): >15000 citations, h-index=56, [ADS](https://ui.adsabs.org/): > 13000 (Normalized citations: >2600).
Popular science book (in Danish): “*Hvad er astronomi*” (Akademisk Forlag, 2009), 232 pages.
Public Outreach: Open universities, science museums, public observatories and newspapers.
Description of my research in e.g. *New Scientist*, *Scientific American*, *Sky & Telescope*, *Astronomy Magazine*, *Astronomy Now*, *PhysicsWorld.com*, *Science News*.

REVIEWER

Referee: Nature, Nature Phys, Nature Comm., Phys.Rev.Lett., PRX, ApJ, ApJ Letters, MNRAS, A&A,
+ proposal evaluator for: ERC, DFG, AvH, Royal Society, NSERC, (NSF), NWO (Vici).

INVITED/CONTRIBUTED TALKS AT CONFERENCES + RESEARCH VISITS/SEMINARS

Sydney, Tokyo, Paris, Aspen, Bormio, Bangalore, Princeton, Seoul, Amsterdam, Bonn, Chile, Beijing, Oxford, Dalhousie, CEA Saclay, Nijmegen, Hamburg, Southampton, Brownsville, Hannover, Bad Honnef, Florence, Cefalù, Moscow, DTU, Aarhus, Bamberg, ASTRON, Bern, La Sapienza, Harvard, Tenerife, Rome, Munich, Stockholm, Geneva, Leiden, Bologna, Karlsruhe, Manchester, Leuven, Warsaw, NORDITA, Prague, Cambridge, La Gomera, Würzburg, Madrid, Potsdam, Lund, Copenhagen, Kyoto, Padova, Jerusalem, Aalborg, Birmingham, UNAM, Trondheim.
About 105 [talks](#) since 2011 (including ~30 invited reviews at international conferences).

SUPERVISION (POSTDOCS AND GRADUATE STUDENTS)

6 postdocs (2013–2022).

PhD: Matthias Kruckow, Uni. Bonn (2013–2018). Later: Yunnan Obs., China + Geneva.

PhD: Alina Istrate, Uni. Bonn (2012–2016). Later: Uni. Wisconsin USA + Radboud, NL.
“Zweitgutachter” on additional PhD-theses at University of Bonn.

PhD opponent/examinator in: Netherlands, Germany, France, Italy, Sweden, Denmark.

Supervisor on many MSc theses in Copenhagen, Aarhus, Bonn, Santiago.

TEACHING EXPERIENCE

Graduate teaching:

Physics of Compact Objects: Aalborg (2022–), Aarhus (2019–2021), Bonn (2012–2017),
Copenhagen (2001, 02, 07, 09), Heidelberg (2013), Padova (2020), AEI Potsdam (2021).

High-Energy Astrophysics: Aalborg (2024–)

Astrophysics seminar: Uni. of Bonn (2013, 2014, 2015, 2016).

Niels Bohr Academy International Summer School 2009, member of LOC, lecturer.

NorFA Nordic-Baltic 2002 Summer School on *Binary Systems* (invited lecturer).

Undergraduate teaching:

Introductory Mechanics and Thermodynamics, Aalborg Uni. (2023–)

Special Relativity, Uni. of Bonn (2013–2016, *KTP* in Deutsch), Aalborg Uni. (2023–)

Stellar Structure and Evolution, Uni. of Copenhagen (2008, 2009, 2010).

Introductory Astronomy, Aalborg Uni. (2022–), Uni. of Copenhagen (2003).

CONFERENCE ORGANIZER (SOC)

Int. Pulsar Symp., China (2024) • NBIA Current Themes (2019)

Frontiers of the Physics of Massive Stars, Mexico (2018) • SNe, ICRANet, Pescara (2016)

41st COSPAR meeting, Event E.1.16, Istanbul (2016) • EWASS, Athens (2016)

14th Marcel Grossmann Meeting, Rome, Parallel Session BN3 Chair (2015)

The Unquiet Universe, Cefalù, Sicily (2014) • X-ray Binaries, Bormio (2013)

Magnetic fields in Neutron Stars, Amsterdam (2012)

I.-XIV. BONN Workshops on Neutron Star Formation and Evolution, Chair (2012–2018)

SCIENCE WORKING GROUP MEMBER

LISA, ET, GWIC 3G SCT, COST: GWverse and PHAROS, SKA, eROSITA, eXTP, Athena.

AWARDS AND RESEARCH GRANTS

Lecturer of the year, Dept. Materials and Production, Aalborg Uni. (2023)

Elected member Academia Europaea – The Academy of Europe (2020)

AIAS Senior Fellowship, Aarhus Institute of Advanced Studies, Aarhus University (2019)

Lehrpreisträger, Dept. Phys. & Astro., Uni. Bonn (1st prize award winner for best teaching, 2016)

Honorary Professor, Aarhus University (2016)

Deutsche Forschungsgemeinschaft (DFG) research grant (2013): ~ €170.000.

NorFA Visiting Professor (2003). Awarded but declined.

Danish Natural Sciences Research Council (2002): ~ €240.000 (assistant professorship 3 yr).

NORDITA Fellow (2000): ~ €160.000.

Marie Curie Research Fellow (individual EU grant, 1997): ~ €180.000.

MANAGEMENT AND ADMINISTRATION

ERC StG Panel PE9 (2022–).

International Max-Planck Research School for Astronomy and Astrophysics committee (2015–2018).

Diploma Course in Academy Profession Degree in Leadership & Management, ZIBAT (2010).

Leader of the physics group at Herlufsholm Skole (2007–2010) + Team IB Board, (2003–2008).

Faculty representative at the Educational Board of the Niels Bohr Institute (2002–2003).

CIVILIAN FACTS

Born in Denmark 1968. Married to Dr. Birgitte Tauris (molecular biologist), three children.

Three full round-the-planet backpacking trips. Black belt instructor in Shotokan JKA karate.

TEXTBOOK

- ♦ “[*Physics of Binary Star Evolution*](#)”, by invitation from Princeton University Press.
T.M. Tauris & E.P.J. van den Heuvel (2023). Textbook, 864 pages.

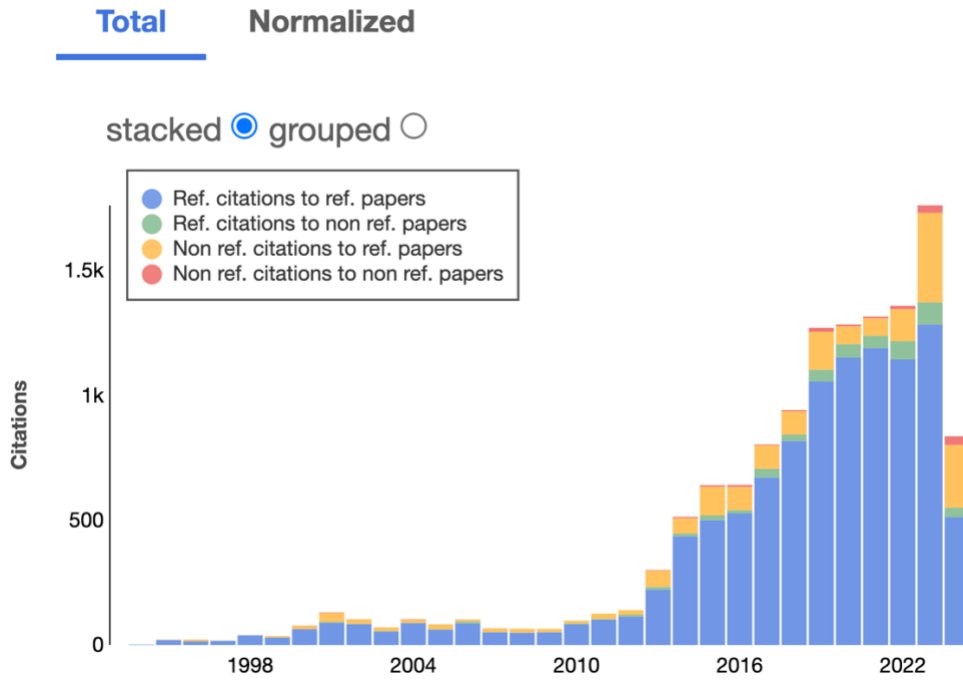
RECENT IMPORTANT PAPERS

- ♦ E.D. Barr, A. Dutta, P.C.C. Freire, ..., **T.M. Tauris**, ..., et al. (2024), *Science* 383, 275
A pulsar in a binary with a compact object in the mass gap between neutron stars and black holes
- ♦ C. Larsen, H.C.G. Larsen, ..., **T.M. Tauris** (2024), *Nature* 625, E18
Probing supernovae and kicks in post-supernovae binaries
- ♦ **T.M. Tauris** (2022), *ApJ* 938, 66 *Tossing Black Hole Spin Axes*
- ♦ V. Venkatraman Krishnan,, **T.M. Tauris**, et al., (2020), *Science* 367, 577
Lense-Thirring frame-dragging induced by a fast rotating white dwarf in a binary pulsar system
- ♦ **T.M. Tauris** (2018), *Phys.Rev.Lett.* 121, 131105
Disentangling Coalescing Neutron Star–White Dwarf Binaries for LISA
- ♦ M.U. Kruckow, **T.M. Tauris**, N. Langer, M. Kramer, R.G. Izzard (2018), *MNRAS* 481, 1908
Progenitors of gravitational wave mergers: Binary evolution with..... ComBinE (340 citations) *
- ♦ **T.M. Tauris**, M. Kramer, P.C.C. Freire, N. Wex, H.-Th. Janka, et al. (2017), *ApJ* 846, 170
Formation of Double Neutron Star Systems (588 citations) *
- ♦ V.V. Gvaramadze, et al., ...**T.M. Tauris**, (2017), *Nature Astronomy* 1, 0116
A solar-type star polluted by calcium-rich supernova ejecta inside the supernova remnant RCW 86
- ♦ P. Marchant, N. Langer, Ph. Podsiadlowski, **T.M. Tauris** & T.J. Moriya (2016), *A&A* 588, 50
A new route towards merging massive black holes (573 citations) *
- ♦ **T.M. Tauris**, N. Langer & Ph. Podsiadlowski (2015), *MNRAS* 451, 2123
Ultra-stripped supernovae: progenitors and fate (371 citations) *
- ♦ **T.M. Tauris** (2015), *MNRAS Letters*, 448, L6
Maximum speed of hypervelocity stars ejected from binaries
- ♦ **T.M. Tauris**, N. Langer, T.J. Moriya, Ph. Podsiadlowski, et al. (2013), *ApJ Letters* 778, L23
Ultra-stripped Type Ic Supernovae from Close Binary Evolution (221 citations) *
- ♦ J. Antoniadis, P.C.C. Freire, N.Wex, **T.M. Tauris**, et al., (2013), *Science* 340, 448
A Massive Pulsar in a Compact Relativistic Binary (3194 citations) *
- ♦ **T.M. Tauris** (2012), *Science* 335, 561 *Spin-Down of Radio Millisecond Pulsars at Genesis*

OTHER SELECTED PAPERS

- ♦ **T.M. Tauris**, N. Langer & M. Kramer (2012), *MNRAS* 425, 1601 – 206 citations *
Formation of millisecond pulsars with CO white dwarf companions - II. Accretion, spin-up....
- ♦ **T.M. Tauris** & E.P.J. van den Heuvel (2006), In: *Compact stellar X-ray sources* – 580 citations *
Formation and evolution of compact stellar X-ray sources, Cambridge University Press
- ♦ R. Voss & **T.M. Tauris** (2003), *MNRAS* 342, 1169 – 298 citations *
Galactic distribution of merging neutron stars and black holes - prospects LIGO/VIRGO
- ♦ **T.M. Tauris**, E.P.J. van den Heuvel & G.J. Savonije (2000), *ApJ Letters* 530, 93 – 180 citations *
Formation of millisecond pulsars with heavy white dwarf companions: Extreme mass transfer on subthermal timescales
- ♦ J.D.M. Dewi & **T.M. Tauris** (2000), *A&A* 360, 1043 – 324 citations *
On the binding energy parameter of the common envelope evolution
- ♦ **T.M. Tauris** & G.J. Savonije (1999), *A&A* 350, 928 – 396 citations *
Formation of millisecond pulsars. I. Evolution of LMXBs with $P > 2$ days
- ♦ **T.M. Tauris** & R.N. Manchester (1998), *MNRAS* 298, 625 – 276 citations *
On the evolution of pulsar beams

ADS (19 April, 2024)



GOOGLE SCHOLAR (19 April, 2024)

Cited by

[VIEW ALL](#)

| | All | Since 2019 |
|-----------|-------|------------|
| Citations | 15778 | 9160 |
| h-index | 56 | 40 |
| i10-index | 114 | 102 |

