

Marc VAN DER SLUYS

Publication list

1. PUBLICATION SUMMARY

REFEREED PUBLICATIONS:	100	ONLINE PUBLICATIONS:	17
NON-REFEREED PUBLICATIONS:	11	SCIENTIFIC SOFTWARE PACKAGES:	21
CITATIONS:	24852	CONTRIBUTIONS TO CONFERENCES:	24
H-INDEX:	61	SEMINAR TALKS AND COLLOQUIA:	21
I10-INDEX:	88	POPULAR TALKS AND LECTURES:	160

2. REFEREED PUBLICATIONS

2.1. REFEREED SHORT-AUTHOR-LIST PUBLICATIONS

1. Meijer, Q., van der Sluys & Caudill 2024, arXiv/2410.07855, submitted: **Robustness of Deep Learning Models to Precession in Gravitational-Wave Searches for Intermediate-Mass Black Hole Binaries**
2. Martins, A., et al. 2024, arXiv/2409.05068, submitted: **Improving Early Detection of Gravitational Waves from Binary Neutron Stars Using CNNs and FPGAs**
3. van der Sluys, M. & van Kan, P., 2022, arXiv/2209.01557, submitted: **SolTrack: a free, fast and accurate routine to compute the position of the Sun**
4. Catau, R., et al. 2020, Urban and Transit Planning, 415: **High-Concentration Solar Energy Systems for the Built Environment**
5. Sonneveld, P., et al. 2019, GreenSys 1296, 715: **A concentrated-solar system to reduce greenhouse heat load and generate energy**
6. Verbunt, F., & van der Sluys, M. 2019, Journal for the History of Astronomy 50.4, 383: **Why Halley did not discover proper motion and why Cassini did**
7. van der Sluys, M., van Kan, P., & Sonneveld, P. 2015, AIPC, 1679, 080003: **CPV in the built environment**
8. P. Sonneveld, M. van der Sluys, A. van Rhijn & M. Hebbink, GreenSys 1170, 477, 2015: **Feasibility study of an electricity delivering Fresnel greenhouse**
9. van Haaften, L. M., Nelemans, G., Voss, R., van der Sluys, M. V., & Toonen, S. 2015, A&A, 579, A33: **Population synthesis of classical low-mass X-ray binaries in the Galactic Bulge**
10. Veitch, J., et al. 2015, PhRvD, 91, 042003: **Parameter estimation for compact binaries with ground-based gravitational-wave observations using the LALInference software library**
11. Sidery, T., et al. 2014, PhRvD, 89, 084060: **Reconstructing the sky location of gravitational-wave detected compact binary systems: Methodology for testing and comparison**
12. Shah, S., Nelemans, G., & van der Sluys, M. 2013, A&A, 553, A82: **Using electromagnetic observations to aid gravitational-wave parameter estimation of compact binaries observed with LISA. II. The effect of knowing the sky position**
13. Ratti, E. M., et al. 2013, MNRAS, 431, L10: **IGR J19308+0530: Roche lobe overflow on to a compact object from a donor 1.8 times as massive**
14. van Haaften, L. M., Nelemans, G., Voss, R., Toonen, S., Portegies Zwart, S. F., Yungelson, L. R., & van der Sluys, M. V. 2013, A&A, 552, A69: **Population synthesis of ultracompact X-ray binaries in the Galactic bulge**
15. Shah, S., van der Sluys, M., & Nelemans, G. 2012, A&A, 544, A153: **Using electromagnetic observations to aid gravitational-wave parameter estimation of compact binaries observed with LISA**
16. Veitch, J., et al. 2012, PhRvD, 85, 104045: **Estimating parameters of coalescing compact binaries with proposed advanced detector networks**

17. Woods, T. E., Ivanova, N., van der Sluys, M. V., & Chaichenets, S. 2012, ApJ, 744, 12: **On the Formation of Double White Dwarfs through Stable Mass Transfer and a Common Envelope**
18. Loveridge, A. J., van der Sluys, M. V., & Kalogera, V. 2011, ApJ, 743, 49: **Analytical Expressions for the Envelope Binding Energy of Giants as a Function of Basic Stellar Parameters**
19. M. Politano, M.V. van der Sluys, R.E. Taam, and B. Willems, 2010, ApJ 720, 1752: **Population Synthesis of Common Envelope Mergers: I. Giant Stars with Stellar or Substellar Companions**
20. V. Raymond, M.V. van der Sluys, I. Mandel, V. Kalogera, C. Röver, N. Christensen, 2010, CQG 27, 114009: **The effects of LIGO detector noise on a 15-dimensional Markov-chain Monte-Carlo analysis of gravitational-wave signals**
21. G. Nelemans, L.R. Yungelson, M.V. van der Sluys and Christopher A. Tout, 2010, MNRAS 401, 1347: **The chemical composition of donors in AM CVn stars and ultra-compact X-ray binaries: observational tests of their formation**
22. Marc van der Sluys, Ilya Mandel, Vivien Raymond, Vicky Kalogera, Christian Röver and Nelson Christensen, 2009, CQG 26, 204010: **Parameter estimation for signals from compact binary inspirals injected into LIGO data**
23. B. Aylott et al. 2009, CQG 26, 165008: **Testing gravitational-wave searches with numerical relativity waveforms: Results from the first Numerical INjection Analysis (NINJA) project**
24. V. Raymond, M.V. van der Sluys, I. Mandel, V. Kalogera, C. Röver and N. Christensen 2009, CQG 26, 114007: **Degeneracies in Sky Localisation Determination from a Spinning Coalescing Binary through Gravitational Wave Observations: a Markov-Chain Monte-Carlo Analysis for two Detectors**
25. L. Cadonati et al. 2009, CQG 26, 114008: **Status of NINJA: the Numerical INjection Analysis project**
26. M.V. van der Sluys, C. Röver, A. Stroerer, V. Raymond, I. Mandel, N. Christensen, V. Kalogera, R. Meyer and A. Vecchio 2008, ApJ 688, L61: **Gravitational-wave astronomy with inspiral signals of spinning compact-object binaries**
27. M. Politano, R.E. Taam, M.V. van der Sluys, and B. Willems 2008, ApJ 687, L99: **Common Envelope Mergers: A Possible Channel for Forming Single sdB Stars**
28. M.V. van der Sluys, V. Raymond, I. Mandel, C. Röver, N. Christensen, V. Kalogera, R. Meyer and A. Vecchio 2008, CQGra 25, 184011: **Parameter estimation of spinning binary inspirals using Markov-chain Monte Carlo**
29. K. Belczynski, R.E. Taam, E. Rantsiou and M.V. van der Sluys 2008, ApJ 682, 474: **Black-hole spin evolution: implications for short hard gamma-ray bursts and gravitational-wave detection**
30. M.V. van der Sluys, F. Verbunt and O.R. Pols 2006, A&A 460, 209: **Modelling the formation of double white dwarfs**
31. J. in 't Zand, A. Cumming, M. van der Sluys, F. Verbunt and O. Pols 2005, A&A 441, 675: **On the possibility of a helium white dwarf donor in the presumed ultracompact binary 2S 0918-549**
32. M.V. van der Sluys, F. Verbunt and O.R. Pols 2005, A&A 440, 973: **Reduced magnetic braking and the magnetic capture model for the formation of ultra-compact binaries**
33. M.V. van der Sluys, F. Verbunt and O.R. Pols 2005, A&A 431, 647: **Creating ultra-compact binaries in globular clusters through stable mass transfer**
34. S.-C. Yoon, N. Langer, and M. van der Sluys 2004, A&A 425, 207: **On the stability of thermonuclear shell sources in stars**
35. M.V. van der Sluys and H.J.G.L.M. Lamers 2003, A&A 398, 181: **The dynamics of the nebula M1-67 around the run-away Wolf-Rayet star WR 124**

2.2. REFEREED LIGO-VIRGO COLLABORATION (LVC) PUBLICATIONS

36. The LIGO Scientific Collaboration, et al. 2024, arXiv, arXiv:2403.03004: **Ultralight vector dark matter search using data from the KAGRA O3GK run**

37. The LIGO Scientific Collaboration, et al. 2023, arXiv:2308.03822: **Search for Eccentric Black Hole Coalescences during the Third Observing Run of LIGO and Virgo**
38. Abbott, R., et al. 2023, ApJS, 267, 29: **Open Data from the Third Observing Run of LIGO, Virgo, KAGRA, and GEO**
39. Acernese, F., et al. 2023, PhRvL, 131, 041403: **Frequency-Dependent Squeezed Vacuum Source for the Advanced Virgo Gravitational-Wave Detector**
40. Acernese, F., et al. 2023, JPhCS, 2429, 012039: **The Advanced Virgo+ status**
41. Acernese, F., et al. 2023, JPhCS, 2429, 012040: **Advanced Virgo Plus: Future Perspectives**
42. Abbott, B. P., et al. 2016, PhRvX, 6, 041014: **Improved Analysis of GW150914 Using a Fully Spin-Precessing Waveform Model**
43. Abbott, B. P., et al. 2016, PhRvL, 116, 241102: **Properties of the Binary Black Hole Merger GW150914**
44. Aasi, J., et al. 2016, PhRvD, 93, 042007: **First low frequency all-sky search for continuous gravitational wave signals**
45. Aasi, J., et al. 2016, PhRvD, 93, 042006: **Search of the Orion spur for continuous gravitational waves using a loosely coherent algorithm on data from LIGO interferometers**
46. Abbott, B. P., et al. 2016, PhRvD, 93, 042005: **All-sky search for long-duration gravitational wave transients with initial LIGO**
47. Abbott, B. P., et al. 2016, LRR, 19, 1: **Prospects for Observing and Localizing Gravitational-Wave Transients with Advanced LIGO and Advanced Virgo**
48. Aasi, J., et al. 2015, ApJ, 813, 39: **Searches for Continuous Gravitational Waves from Nine Young Supernova Remnants**
49. Aasi, J., et al. 2015, CQGra, 32, 115012: **Characterization of the LIGO detectors during their sixth science run**
50. Acernese, F., et al. 2015, JPhCS, 610, 012014: **The Advanced Virgo detector**
51. Accadia, T., et al. 2015, ppyc.conf, 261: **Advanced Virgo Interferometer: a Second Generation Detector for Gravitational Waves Observation**
52. Aasi, J., et al. 2015, PhRvD, 91, 062008: **Directed search for gravitational waves from Scorpius X-1 with initial LIGO data**
53. Aasi, J., et al. 2015, PhRvD, 91, 022004: **Narrow-band search of continuous gravitational-wave signals from Crab and Vela pulsars in Virgo VSR4 data**
54. Aasi, J., et al. 2015, PhRvD, 91, 022003: **Searching for stochastic gravitational waves using data from the two colocated LIGO Hanford detectors**
55. Acernese, F., et al. 2015, CQGra, 32, 024001: **Advanced Virgo: a second-generation interferometric gravitational wave detector**
56. Aasi, J., et al. 2014, PhRvL, 113, 231101: **Improved Upper Limits on the Stochastic Gravitational-Wave Background from 2009-2010 LIGO and Virgo Data**
57. Aartsen, M. G., et al. 2014, PhRvD, 90, 102002: **Multimessenger search for sources of gravitational waves and high-energy neutrinos: Initial results for LIGO-Virgo and IceCube**
58. Aasi, J., et al. 2014, PhRvD, 90, 062010: **First all-sky search for continuous gravitational waves from unknown sources in binary systems**
59. Accadia, T., et al. 2014, CQGra, 31, 165013: **Reconstruction of the gravitational wave signal $h(t)$ during the Virgo science runs and independent validation with a photon calibrator**
60. Aasi, J., et al. 2014, PhRvL, 113, 011102: **Search for Gravitational Waves Associated with γ -ray Bursts Detected by the Interplanetary Network**

61. Aasi, J., et al. 2014, PhRvD, 89, 122004: **Methods and results of a search for gravitational waves associated with gamma-ray bursts using the GEO 600, LIGO, and Virgo detectors**
62. Aasi, J., et al. 2014, PhRvD, 89, 122003: **Search for gravitational radiation from intermediate mass black hole binaries in data from the second LIGO-Virgo joint science run**
63. Aasi, J., et al. 2014, CQGra, 31, 115004: **The NINJA-2 project: detecting and characterizing gravitational waveforms modelled using numerical binary black hole simulations**
64. Aasi, J., et al. 2014, PhRvD, 89, 102006: **Search for gravitational wave ringdowns from perturbed intermediate mass black holes in LIGO-Virgo data from 2005-2010**
65. Aasi, J., et al. 2014, PhRvL, 112, 131101: **Constraints on Cosmic Strings from the LIGO-Virgo Gravitational-Wave Detectors**
66. Aasi, J., et al. 2014, CQGra, 31, 085014: **Application of a Hough search for continuous gravitational waves on data from the fifth LIGO science run**
67. Aasi, J., et al. 2014, ApJ, 785, 119: **Gravitational Waves from Known Pulsars: Results from the Initial Detector Era**
68. Aasi, J., et al. 2014, ApJS, 211, 7: **First Searches for Optical Counterparts to Gravitational-wave Candidate Events**
69. Aasi, J., et al. 2013, PhRvD, 88, 102002: **Directed search for continuous gravitational waves from the Galactic center**
70. Aasi, J., et al. 2013, NaPho, 7, 613: **Enhanced sensitivity of the LIGO gravitational wave detector by using squeezed states of light**
71. Abadie, J., et al. 2012, ApJ, 755, 2: **Implications for the Origin of GRB 051103 from LIGO Observations**
72. Abadie, J., et al. 2011, PhRvL, 107, 261102: **Directional Limits on Persistent Gravitational Waves Using LIGO S5 Science Data**
73. Abadie, J., et al. 2011, ApJ, 737, 93: **Beating the Spin-down Limit on Gravitational Wave Emission from the Vela Pulsar**
74. Abadie, J., et al. 2011, PhRvD, 83, 042001: **Search for gravitational waves associated with the August 2006 timing glitch of the Vela pulsar**
75. Abadie, J., et al. 2011, PhRvD, 83, 122005: **Search for gravitational waves from binary black hole inspiral, merger, and ringdown**
76. Abadie, J., et al. 2011, ApJ, 734, L35: **Search for Gravitational Wave Bursts from Six Magnetars**
77. Abadie, J., et al. 2011, PhRvD, 83, 042001: **Search for gravitational waves associated with the August 2006 timing glitch of the Vela pulsar**
78. Abadie, J., et al. 2010, NIMPA, 624, 223: **Calibration of the LIGO gravitational wave detectors in the fifth science run**
79. Abadie, J., et al. 2010, PhRvD, 82, 102001: **Search for gravitational waves from compact binary coalescence in LIGO and Virgo data from S5 and VSR1**
80. Abadie, J., et al. 2010, ApJ, 722, 1504: **First Search for Gravitational Waves from the Youngest Known Neutron Star**
81. Abadie, J., et al. 2010, CQGra, 27, 173001: **TOPICAL REVIEW: Predictions for the rates of compact binary coalescences observable by ground-based gravitational-wave detectors**
82. Abadie, J., et al. 2010, ApJ, 715, 1453: **Search for Gravitational-wave Inspiral Signals Associated with Short Gamma-ray Bursts During LIGO's Fifth and Virgo's First Science Run**
83. Abbott, B. P., et al. 2010, ApJ, 715, 1438: **Search For Gravitational-wave Bursts Associated with Gamma-ray Bursts using Data from LIGO Science Run 5 and Virgo Science Run 1**

84. Abadie, J., et al. 2010, PhRvD, 81, 102001: **All-sky search for gravitational-wave bursts in the first joint LIGO-GEO-Virgo run**
85. Abbott, B. P., et al. 2010, ApJ, 713, 671: **Searches for Gravitational Waves from Known Pulsars with Science Run 5 LIGO Data**
86. Abbott, B. P., et al. 2009, PhRvD, 80, 102002: **Search for high frequency gravitational-wave bursts in the first calendar year of LIGO's fifth science run**
87. Abbott, B. P., et al. 2009, PhRvD, 80, 102001: **Search for gravitational-wave bursts in the first year of the fifth LIGO science run**
88. Abbott, B. P., et al. 2009, PhRvD, 80, 062002: **First LIGO search for gravitational wave bursts from cosmic (super)strings**
89. Abbott, B. P., et al. 2009, PhRvD, 80, 062001: **Search for gravitational wave ringdowns from perturbed black holes in LIGO S4 data**
90. Abbott, B. P., et al. 2009, PhRvD, 80, 047101: **Search for gravitational waves from low mass compact binary coalescence in 186 days of LIGO's fifth science run**
91. Abbott, B. P., et al. 2009, PhRvD, 80, 042003: **Einstein@Home search for periodic gravitational waves in early S5 LIGO data**
92. Abbott, B. P., et al. 2009, Natur, 460, 990: **An upper limit on the stochastic gravitational-wave background of cosmological origin**
93. Abbott, B. P., et al. 2009, ApJ, 701, L68: **Stacked Search for Gravitational Waves from the 2006 SGR 1900+14 Storm**
94. Abbott, B. P., et al. 2009, RPPH, 72, 076901: **LIGO: the Laser Interferometer Gravitational-wave Observatory**
95. Abbott, B., et al. 2009, NJPh, 11, 073032: **Observation of a kilogram-scale oscillator near its quantum ground state**
96. Abbott, B. P., et al. 2009, PhRvD, 79, 122001: **Search for gravitational waves from low mass binary coalescences in the first year of LIGO's S5 data**
97. Abbott, B. P., et al. 2009, PhRvL, 102, 111102: **All-Sky LIGO Search for Periodic Gravitational Waves in the Early Fifth-Science-Run Data**
98. Abbott, B., et al. 2009, PhRvD, 79, 022001: **Einstein@Home search for periodic gravitational waves in LIGO S4 data**
99. Abbott, B., et al. 2008, CQGra, 25, 245008: **First joint search for gravitational-wave bursts in LIGO and GEO 600 data**
100. Abbott, B., et al. 2008, PhRvL, 101, 211102: **Search for Gravitational-wave Bursts from Soft Gamma Repeaters**
101. Abbott, B., et al. 2008, ApJ, 683, L45: **Beating the Spin-Down Limit on Gravitational Wave Emission from the Crab Pulsar**
102. Abbott, B., et al. 2008, CQGra, 25, 114051: **Astrophysically triggered searches for gravitational waves: status and prospects**

3. NON-REFEREED PUBLICATIONS

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1. Aasi, J., et al. 2017, yCat, J/ApJ/785/119: **VizieR Online Data Catalog: Gravitational waves from known pulsars (Aasi+, 2014)**
 2. van der Sluys, M. 2011, ASPC, 447, 317: **Gravitational Waves from Compact Binaries**
 3. Woods, T. E., Ivanova, N., van der Sluys, M., & Chaichenets, S. 2011, ASPC, 447, 127: **On The Formation of Double White Dwarfs: Reevaluating How We Parametrise the Common Envelope Phase**

4. Woods, T. E., Ivanova, N., van der Sluys, M., & Chaichenets, S. 2010, AIPC, 1314, 24: **The Formation of Low-Mass Double White Dwarfs through an Initial Phase of Stable Non-Conservative Mass Transfer**
5. van der Sluys, M., Politano, M., & Taam, R. E. 2010, AIPC, 1314, 13: **Masses and Envelope Binding Energies of Primary Stars at the Onset of a Common Envelope**
6. The LIGO Scientific Collaboration, et al. 2010, arXiv:1003.2481: **Sensitivity to Gravitational Waves from Compact Binary Coalescences Achieved during LIGO’s Fifth and Virgo’s First Science Run**
7. Nelemans, G., et al. 2009, astro, 2010, 221: **The astrophysics of ultra-compact binaries**
8. Michael Politano, R.E. Taam, M. van der Sluys and B. Willems, 2009, AAS 21343215: **Mergers During Common Envelope Evolution Involving a Giant Star and a Stellar or Substellar Companion**
9. M.V. van der Sluys, C. Röver, A. Stroeer, N. Christensen, V. Kalogera, R. Meyer, A. Vecchio and I. Mandel 2008, APS APRB10004: **Bayesian inference on spinning compact-binary inspirals with ground-based gravitational-wave laser interferometers**
10. M.V. van der Sluys, A. Stroeer, A. Vecchio and V. Kalogera 2006 AAS 209.7416: **Bayesian Inference and Observations of Massive Black-hole Binaries with LISA**
11. M.V. van der Sluys, F. Verbunt and O.R. Pols 2005, AIPC 797, 627, in *Interacting binaries: accretion, evolution, and outcomes*: **Creating ultra-compact binaries through stable mass transfer**

4. BOOKS

1. Marc van der Sluys and Frank Verbunt: **Computing celestial phenomena with Python**, Radboud University press, 2025, in preparation.¹
2. Frank Verbunt and Marc van der Sluys: **Het leven van sterren** (the life of stars), Epsilon press, 2024, 3rd edition, in preparation.

5. ONLINE PUBLICATIONS

These “living documents”, lecture notes, tutorials, technical documents, et cetera can be found through pub.vandersluys.nl. Online documents are easily updated, hence “living”. The date of the most recent version is listed. Where applicable, I indicate whether the document was (originally) written or used for Utrecht University (UU), the HAN University of applied sciences (HAN) or the Radboud University (RU).

1. MvdS 2023-12: **Binary evolution in a nutshell** (RU MSc tutorial/cheat sheet)
2. MvdS 2023-09: **Getting started with Bash, Emacs, Python and Git** (UU MSc tutorial)
3. MvdS 2023-09: **Efficient use of the Linux command line in the Bash shell** (HAN BSc tutorial)
4. MvdS 2023-09: **Getting started with Emacs** (HAN BSc tutorial)
5. MvdS 2023-07: **Celestial mechanics in a nutshell** (technical document)
6. MvdS 2021-08: **Sunlight and solar energy** (HAN MSc lecture notes)
7. MvdS 2021-07: **Writing a short scientific paper: \LaTeX template and instructions** (HAN MSc tutorial)
8. MvdS 2021-02: **Installing Arch Linux ARM on a Raspberry Pi** (HAN BSc tutorial)
9. MvdS 2020-11: **Operating systems and Linux system programming** (HAN BSc lecture notes)
10. MvdS 2020-10: **Solar-concentration optics** (HAN technical note)
11. MvdS 2020-10: **Insolation in the Netherlands** (HAN technical fact sheet)
12. MvdS, PvK 2020-08: **Code development with Python** (HAN MSc tutorial)
13. PvK, MvdS 2020-07: **Modelling the COP of heat pumps as a function of temperature** (HAN technical paper)
14. MvdS 2019-04: **A brief C tutorial, with code examples** (HAN BSc tutorial)

¹A sneak preview can be found on <https://astro.ru.nl/~sluys/Stuff/CCP-book/ComputingCelestialPhenomena.pdf>

15. MvdS 2016-09: **Errata NEN 5060 Hygrothermische eigenschappen van gebouwen – Referentieklimaatgegevens** (HAN technical report: errata on Dutch insulation norm)
16. MvdS 2015-11: **Availability of wind in the Netherlands** (HAN technical fact sheet)
17. MvdS 2000-10: **Bepaling van de rotatiesnelheid van de Zon** (measuring the rotational velocity of the Sun in the context of a high-school physics exam)

6. AUTHORED SCIENTIFIC SOFTWARE PACKAGES

Most of my free and open-source software (FOSS) has been released under the EUPL or (L)GPL licence as source code and/or packages and can be found on the following websites:

GitHub	github.com/MarcvdSluys	Source code
Sourceforge	sourceforge.net/u/marcvdsluys	Source code and packages
PyPI	pypi.org/user/MarcvdSluys	Python packages

The following list gives a selection of my most relevant, science-related software packages. See software.vandersluys.nl for more open-source projects. As of December 2023, my packages have been downloaded more than 230.000 times.

1. LIBSUFR: a **library** containing Some Useful Fortran Routines, GPL, libsufr.sf.net (2002–2024).
2. LIBTHESKY: a **library** to compute the positions of bodies in **The Sky** (Moon, planets, stars) and events (conjunctions, eclipses), GPL, libthesky.sf.net; core of the code that generates the popular-astronomy website hemel.waarnemen.com (2002–2023).
3. SLUYSKY: all the useful Python functions I should have found elsewhere but didn't, EUPL, pypi.org/project/sluysky (2022–2024).
4. SOLTRACK: free, fast and accurate C/C++, Python and Arduino routines to compute the position of the Sun, EUPL/(L)GPL, soltrack.sf.net, pypi.org/project/soltrack (2014–2024).
5. SOLARENERGY: a Python package to do simple modelling in the field of solar energy, EUPL, pypi.org/project/solarenergy (2020–2023).
6. ASTROTOOL: a Python package for astronomical calculations, EUPL, pypi.org/project/astrotool (2021–2024).
7. ASTROCONST: a Python package that provides astronomical constants, EUPL, pypi.org/project/astrotool (2022–2024).
8. METEOSERVER: a Python package to obtain and read Dutch weather data from Meteoserver.nl, GPL, pypi.org/project/meteoserver (2020–2023).
9. HISTASTRO: a Python package for historical-astronomy calculations of Sun, Moon and planets, GPL, pypi.org/project/histastro (2019–2023).
10. GWTOOL: simple command-line tools for working with gravitational waves, GPL, gwtool.sf.net (2007–2021).
11. ROCHEPLOT: schematically illustrate the key stages in the evolution of a binary star, several contributions, GPL, rocheplot.sf.net (2012–2021).
12. EVTOOLS: Fortran tools to reduce, analyse and present output from the binary stellar-evolution code ev, GPL, evtools.sf.net (2002–2024).
13. EVTOOL: Python tools to reduce, analyse and present output from the binary stellar-evolution code ev, EUPL, evtools.sf.net (2023).
14. PG2PLPLOT: aids the transition from Fortran code linked against PGPlot to linking it against PLplot, GPL, pg2plplot.sf.net (2013–2024).
15. ELP-MPP02: accurate Moon positions using the lunar solution ELP/MPP02 in Python, GPL, pypi.org/project/elp-mpp02 (2019–2023).

16. EV: also known as STARS, TWIN, or “The Eggleton code”: a detailed binary-stellar evolution code by Peter Eggleton; several contributions to the “Utrecht branch” of this code, stars.vandersluys.nl (2005–2023).
17. ASTROTOOLS: assorted command-line tools for astronomy and astrophysics, written in Fortran, GPL, astrotools.sf.net (2002–2022).
18. PG2PLPLOT: aids the transition from Fortran code linked against PGPlot to linking it against PLplot, GPL, pg2plplot.sf.net (2013–2022).
19. ANALYSEMCMC: analyses and presents output from the MCMC codes SPINSPIRAL and LALINFERENCE_MCMC, GPL, analysecmcmc.sf.net (2006–2022).
20. SPINSPIRAL: a PT-MCMC parameter-estimation code to analyse gravitational-wave binary-inspiral signals detected with LIGO/Virgo, including spin effects, GPL, spinspiral.sf.net (2006–2022).
21. RTSCHEDULE: a real-time-schedule generator to create and present simple and idealised RT schedules from task lists, GPL, rtschedule.sf.net (2016–2021).
22. LALINFERENCE_MCMC: parameter-estimation code using LAL to analyse GW binary-inspiral signals detected with LIGO/Virgo, several contributions, GPL, tiny.cc/lal (2010–2015).

7. CONTRIBUTIONS TO CONFERENCES AND WORKSHOPS

1. April 15, 2013, *Third Bonn workshop on formation and evolution of neutron stars*, Bonn, Germany. Talk: **Measuring neutron-star properties with LIGO and Virgo**
2. August 16, 2012, *EuroWD12*, Krakow, Poland. Talk: **The formation of double white dwarfs**
3. June 25, 2012, *Virgo week 2012*, Pisa, Italy. Talk: **Using astrophysical knowledge in gravitational-wave data analysis of binary inspirals**
4. April 12, 2011, *NOVA Network-3 meeting*, Leiden, The Netherlands. Talk: **Using astrophysical knowledge in gravitational-wave data analysis of binary inspirals**
5. March 11, 2011, *The evolution of compact binaries*, Viña del Mar, Chile. Talk: **Using astrophysical knowledge in gravitational-wave data analysis of binary inspirals**
6. March 9, 2011, *The evolution of compact binaries*, Viña del Mar, Chile. Invited review: **Gravitational waves from compact binaries**
7. January 28, 2011, *GWPAW-15*, Milwaukee, WI, U.S.A. Talk: **Using astrophysical knowledge in gravitational-wave data analysis of binary inspirals**
8. November 5, 2010, *Dutch Physics Society (N.V.V.)*, Lunteren, The Netherlands. Talk: **Using astrophysical knowledge in gravitational-wave data analysis**
9. June 22, 2010, *Binary star evolution: mass loss, accretion and mergers*, Mykonos, Greece. Talk: **Population synthesis of common-envelope mergers on the giant branches**
10. September 29, 2009, *Stellar Mergers workshop*, Leiden, the Netherlands. Talk: **The formation of single sdB stars through common-envelope mergers / Observing BH/NS mergers with LIGO/Virgo**
11. June 4, 2009, *LSC-Virgo meeting*, Orsay, France. Talk (on behalf of the CBC group): **Bayesian inference in the CBC follow-up pipeline**
12. March 17, 2009, *Wild Stars in the Old West II*, Tucson, Az, USA. Talk: **Magnetic capture and the CV formation channel for AM CVn stars**
13. January 19–22, 2009, *GWDAAW-13*, San Juan, Puerto Rico. Poster: **Gravitational-wave astronomy using Markov-chain Monte-Carlo parameter estimation for compact binary inspirals with spinning objects**
14. September 20–25, 2008, *LSC-Virgo meeting*, Amsterdam, The Netherlands. Talk: **Dependence of sky-position degeneracies on the detector network and black-hole spin**

15. September 1–5, 2008, *2nd International Workshop on AM CVn stars*, Cape Town, S.A. Talk: **Formation of double white dwarfs and AM CVn stars**
16. June 10, 2008, *LIGO-Virgo meeting*, Orsay, France. Talk: **The effect of spin on the accuracy of parameter estimation of binary black-hole inspirals**
17. April 12, 2008, *American Physical Society Meeting*, St. Louis, Mo, USA. Talk: **Parameter estimation of spinning binary black-hole inspirals using MCMC**
18. March 15–20, 2008, *CBC F2F, LIGO-Virgo meeting, Caltech*, Pasadena, Ca, USA. Talk: **Parameter estimation of spinning binary black-hole inspirals using MCMC on LIGO data**
19. December 13–16, 2007, *GWDAAW 12, MIT, Boston*, Boston, Ma, USA. Poster: **Parameter estimation of spinning binary inspirals using MCMC**
20. October 20–25, 2007, *CBC F2F, LIGO-Virgo meeting*, Hannover, Germany. Talk: **Bayesian follow-up in the CBC pipeline**
21. August 29 – 31, 2005: Workshop: *Modest 6*, Evanston, Il, USA. Poster: **Creating ultra-compact X-ray binaries in globular clusters**
22. July 4 – 8, 2005 *Workshop on AM CVn Stars*, Nijmegen, The Netherlands. Talk: **Modelling the evolution of double white-dwarf systems**
23. December 15 – 17, 2004: Workshop: *Modest 5a*, Edinburgh, Scotland. Talk: **Creating ultra-compact binaries in globular clusters through stable mass transfer**
24. July 4 – 10, 2004: Conference: *Interacting binaries*, Cefalù, Sicily, Italy. Poster: **Creating ultra-compact binaries through stable mass transfer**

8. SELECTED TALKS FOR COLLOQUIA, SEMINARS AND GROUP MEETINGS

1. March 19, 2024, Monash University, Melbourne Australia, Astrophysics seminar: **The formation of (double-lined) double white dwarfs and other GW sources**
2. March 21, 2012, Centro de Astrofisica, Universidad de Valparaíso, Chile, Astrophysics colloquium: **Compact binaries and gravitational waves**
3. March 20, 2012, ESO Vitacura office, Santiago, Chile, Astrophysics colloquium: **Compact binaries and gravitational waves**
4. May 12, 2010, Astronomical Institute/SRON, Utrecht University, Astrophysics Colloquium: **Gravitational-wave astronomy with LIGO and Virgo**
5. May 11, 2010, Astron, Dwingeloo, the Netherlands, Colloquium: **Population synthesis of common-envelope mergers on the giant branches**
6. May 4, 2010, Max Planck Institute for Astrophysics, Garching, Germany, Astrophysics seminar: **Population synthesis of common-envelope mergers on the giant branches**
7. May 3, 2010, Innsbruck University, Astrophysics colloquium: **Gravitational-wave astronomy with LIGO and Virgo**
8. April 29, 2010, Leiden Observatory, Leiden University, Astrophysics colloquium: **Gravitational-wave astronomy with LIGO and Virgo**
9. April 27, 2010, Department of astrophysics, Radboud Universiteit Nijmegen, Astrophysics seminar: **Gravitational-wave astronomy with LIGO and Virgo**
10. March 11, 2010, Canadian Institute for Theoretical Astrophysics, University of Toronto, CITA seminar: **Gravitational-wave astronomy with LIGO and Virgo**
11. March 3, 2010, Department of physics & astronomy, McMaster University, astrophysics seminar: **Population synthesis of common-envelope mergers on the giant branches**

12. January 11, 2010, Department of physics & astronomy, University of British Columbia, astrophysics colloquium: **Population synthesis of common-envelope mergers on the giant branches / Gravitational-wave astronomy with LIGO and Virgo**
13. March 27, 2008, Center for gravitational-wave physics, Penn State University, seminar: **Parameter estimation of spinning binary black-hole inspirals using MCMC**
14. October 19, 2007, University of Birmingham, Gravity group meeting: **The formation of ultra-compact binaries in globular clusters**
15. October 4, 2007, Northwestern University, Theoretical astrophysics group meeting: **Parameter estimation of spinning binary black-hole inspirals using MCMC**
16. October 19, 2006, Northwestern University, Theoretical astrophysics group meeting: **How the Giant lost its mantle and became a Dwarf**
17. October 7, 2004, Student Seminar, Utrecht University: **How not to create ultra-compact binaries in globular clusters**
18. December 4, 2003, Student Seminar, Utrecht University: **No double white dwarfs from stable mass transfer**
19. December 17, 2002, Astrophysical Seminar, University of Innsbruck: **Backward evolutionary calculations to explain double white dwarf systems**
20. March 27, 2002, Colloquium, University of Innsbruck: **The dynamics of the nebula M1-67 around the run-away Wolf-Rayet star WR 124**
21. August 27, 2001, Graduation Talk, Utrecht University: **A bowshock model for the run-away Wolf-Rayet star WR 124**

9. EDITOR OF CONFERENCE PROCEEDINGS

1. **International conference on binaries**, in celebration of Ron Webbink's 65th birthday, Mykonos, Greece, 22–25 June 2010. Editors: Vicky Kalogera and Marc van der Sluys. Melville, New York, 2010, AIP Conference Proceedings 1314.

10. EDITOR, COLUMNS, LETTERS AND WIKIPEDIA

1. **Sonnenborgh Berichten**, newsletter of Sonnenborgh public observatory in Utrecht: chief editor and column (1995–1997).
2. **Sterrenwachtpost**, newsletter of Sonnenborgh public observatory in Utrecht: chief editor and column (1998–2001).
3. **Vrijbrief**, newsletter of the Dutch Linux user group (NLLGG): columns (2021–2022).
4. **Volkskrant**, Dutch national newspaper: six of my 91 letters to the editor since 2011 were published (though in some cases (a) similar letter(s) was/were published instead).
5. **Wikipedia edits**: 461 (Dutch, English, German; varying from typos to new pages).