Contact information

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Birthday:	January 17th, 1983
Nationality:	Dutch
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Research interests

Pulsar science, with a special focus on:
- The pulsar timing data reduction pipeline
- Pulsar timing array science

Various data analysis topics, especially:
- Time-series analysis
- (Bayesian) data analysis
- Algorithmic development
- Machine learning
- Statistics
- Gravitational-wave detector data analysis

Positions

2013 — now	Einstein postdoctoral fellow at NASA's Jet Propulsion Laboratory / California Institute of Technology, Pasadena, USA
2011 — 2013	Postdoctoral fellow at Max-Planck Institut für experimentelle Gravitationsphysik (Albert Einstein Institut), Hannover, Germany
2011 — 2011	Postdoctoral fellow at Leiden Observatory, Leiden, the Netherlands

Education

Leiden University, Leiden, the Netherlands

Ph.D. Astrophysics	Leiden Observatory
Dissertation topic	Gravitational Wave Detection and data analysis for Pulsar Timing Arrays.
Advisor	Yuri Levin
Defended	October 2011

Leiden University, Leiden, the Netherlands

M.Sc. Theoretical physics	Lorentz Institute
Thesis topic	Topics in data analysis and Pulsar Timing
Thesis advisor	Yuri Levin
Defended	May 2007

International prizes and awards

Einstein fellowship 2013	Awarded a three-year fellowship at the Jet Propulsion Laboratory *(declined)*
Hubble fellowship 2013	
GWIC thesis prize 2011	Gravitational Wave International Committee (GWIC) thesis prize 2011. *For an outstanding Ph.D. thesis based on research in gravitational waves.* First time awarded to pulsar timing research.
Stefano Braccini prize 2011	Honourable mention (2nd place). *For the original techniques and infrastructure for data analysis aimed at detecting the gravitational wave cosmological background using pulsar timing delays.*

Teaching experience

Teaching assistant, Leiden University	2007—2011
Several undergraduate/graduate astrophysics courses (e.g. data reduction).	
Student teaching assistant, Leiden University	2004—2006
Several undergraduate physics courses (e.g. Advanced classical mechanics).	
Mathematics lecturer	2002—2007
Lecturer at Stichting Studiebegeleiding Leiden, high school crash courses	
Mathematics lecturer	2002—2007
Lecturer at Stichting Studiebegeleiding Leiden, high school substitute	
High school tutor	2004—2007
Tutor for natural sciences, Descartes Onderwijsbegeleiding	

Selected refereed publications

van Haasteren, R., & Vallisneri, M., 2014, *Low-rank approximations for large stationary covariance matrices, as used in the Bayesian and generalized-least-squares analysis of pulsar-timing data* ArXiv e-prints, Jun. (accepted MNRAS)

van Haasteren, R., & Vallisneri, M., 2014, *New advances in the Gaussian-process approach to pulsar-timing data analysis* ArXiv e-prints, Jun. (accepted PRD)

Cornish, N.J., & **van Haasteren, R.**, 2014, *Mapping the nano-Hertz gravitational wave sky,* ArXiv e-prints, Jun. (submitted)

van Haasteren, R., 2012, *Accelerating pulsar timing data analysis,* MNRAS, 429(Feb.), 55—62

van Haasteren, R., & Levin, Y., 2012, *Understanding and analysing time-correlated stochastic signals in pulsar timing,* ArXiv e-prints, Feb. (accepted MNRAS)

van Haasteren, R. *et al.*, 2012, *Erratum: Placing limits on the stochastic gravitational-wave background using European Pulsar Timing Array data,* MNRAS, 425(Sept.), 1597—1597.

van Haasteren, R. *et al.*, 2011, *Placing limits on the stochastic gravitational-wave background using European Pulsar Timing Array data,* MNRAS, 414(July), 3117—3128.

Ferdman, R.D, **van Haasteren, R.** *et al.*, 2010, *The European Pulsar Timing Array: current efforts and a LEAP toward the future,* Classical and Quantum Gravity, 27(Apr.), 084014.

van Haasteren, R., & Levin, Y., 2010, *Gravitational-wave memory and pulsar timing arrays,* MNRAS, 401(Feb.), 2372—2378.

van Haasteren, R. *et al.*, 2009, *On measuring the gravitational-wave background using Pulsar Timing Arrays,* MNRAS, 395(May), 1005—1014.

Other publications

Ellis, J. *et al.*, 2014, *NANOGrav Limits on Gravitational Waves from Individual Supermassive Black Hole Binaries in Circular Orbits*, 2014, Arxiv e-prints, (May)

Lee, K.J. *et al.*, 2014, *Model-based asymptotically optimal dispersion measure correction for pulsar timing*, 2014, MNRAS, 411(Jul.), 2831—2844

Lentati L. *et al.*, 2014, *TEMPONEST: a Bayesian approach to pulsar timing analysis*, 2014, MNRAS, 437(Jan.), 3004—3023

Lentati L. *et al.*, 2013, *Hyper-efficient model-independent Bayesian method for the analysis of pulsar timing data*, 2013, RhRvD, 87(May), 104021

van Haasteren, R., 2012, *Gravitational-wave detection with pulsar timing,*, 2012, ASP Conference Proceedings, 467(Dec.), p115—127.

Lassus, A, **van Haasteren, R.** *et al.*, 2012, *A Data Analysis Library For Gravitational Wave Detection,*, Proceedings IAU Symposium, 291

Hobbs, G. *et al.*, 2010, *The International Pulsar Timing Array project: using pulsars as a gravitational wave detector,*, Classical and Quantum Gravity, 27(Apr.), 084013.

van Haasteren, R., 2009, *Bayesian Bayesian evidence: can we beat MultiNest using traditional MCMC methods?,* ArXiv e-prints, (Nov.)