

# Dr. Timothy R. White

## Curriculum Vitae

Institut für Astrophysik,  
Georg-August-Universität Göttingen  
Friedrich-Hund-Platz 1, 37077 Göttingen

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## Research

My research has found me at the intersection of the fields of asteroseismology and long-baseline optical interferometry. These are two of the most powerful techniques of modern stellar astrophysics, made possible due to recent advances in instrumentation. I have made use of data provided by the NASA Space Telescope *Kepler* to study stellar oscillations and used the PAVO instrument at the CHARA interferometric array on Mt Wilson, California to precisely determine the parameters of several *Kepler* stars. By studying the oscillations of stars asteroseismically, and measuring angular diameters with interferometry, fundamental stellar parameters such as mass, radius, and effective temperature may be determined with great precision and accuracy. Determining these constraints is crucial for testing stellar models, through which we understand stellar structure and evolution.

## Academic Positions

**Oct 2013 – present:** Postdoctoral Researcher at the Institut für Astrophysik,  
Georg-August-Universität Göttingen  
**August 2013:** Postdoctoral Research Assistant at the Stellar Astrophysics Centre,  
Department of Physics and Astronomy, Aarhus University  
**2010-2012:** Postgraduate Teaching Fellow at the School of Physics, University of Sydney

## Education

**2010-2013:** Doctor of Philosophy, School of Physics, The University of Sydney and  
Australian Astronomical Observatory  
*Thesis Title:* Asteroseismology of Sun-Like Stars with Kepler  
*Supervisors:* Tim Bedding, Dennis Stello, Simon O'Toole  
*Degree Conferred:* 30 May 2014  
**2006-2009:** Bachelor of Science (Advanced) (Honours), The University of Sydney  
*Majors:* Physics and Applied Mathematics  
*Thesis Title:* Frequency Analysis of the Rapidly Oscillating Ap Star HR1217  
*Supervisors:* Tim Bedding, Dennis Stello, Brendon Brewer  
*Final Result:* Honours Class I and the University Medal  
*Degree Conferred:* 28 May 2010

## Scholarships and Awards

- 2010-2013:** Australian Postgraduate Award  
University of Sydney Merit Award  
Denison Merit Award
- 2010-2012:** Australian Astronomical Observatory PhD Scholarship
- 2009:** Henry Chamberlain Russell Prize in Astronomy
- 2008:** Deas-Thomson Scholarship in Physics (shared)  
School of Physics - Julius Sumner Miller Scholarships for Academic Excellence No.3 (Shared)  
Walter Burfitt Scholarship No II for Physics (shared)  
Placed on the Dean's List of Excellence in Academic Performance
- 2007:** Science Foundation for Physics Scholarship No II
- 2006:** Placed on the Dean's List of Excellence in Academic Performance

## Publications

- 31 Publications in refereed journals; 6 as first author.
- Over 1100 citations with a Hirsch-index of 18

### Refereed Papers:

1. G. W. Marcy, & 102 co-authors including **T. R. White**. 2014, ApJS, 210, 20.
2. T. Arentoft, B. Tingley, J. Christensen-Dalsgaard, H. Kjeldsen, **T. R. White**, F. Grundahl. 2014, MNRAS, 437, 1318.
3. V. Maestro, & 10 co-authors including **T. R. White**. 2013, MNRAS, 434, 1321.
4. **T. R. White**, D. Huber, V. Maestro, et al. 2013, MNRAS, 433, 1262.
5. V. Silva Aguirre, & 23 co-authors including **T. R. White**. 2013, ApJ, 769, 141.
6. O. Benomar, & 9 co-authors including **T. R. White**. 2013, ApJ, 767, 169.
7. D. Stello, & 9 co-authors including **T. R. White**. 2013, ApJ, 765, L41.
8. D. Huber, & 39 co-authors including **T. R. White**. 2012, ApJ, 760, 32.
9. E. Corsaro, & 21 co-authors including **T. R. White**. 2012, ApJ, 757, 190.
10. T. Appourchaux, & 27 co-authors including **T. R. White**. 2012, A&A, 543, A54.
11. D. Huber, & 15 co-authors including **T. R. White**. 2012, MNRAS, 432, L16.
12. **T. R. White**, T. R. Bedding, M. Gruberbauer, et al. 2012, ApJ, 751, L36.
13. S. Mathur, & 41 co-authors including **T. R. White**. 2012, ApJ, 749, 152.
14. S. B. Howell, & 66 co-authors including **T. R. White**. 2012, ApJ, 746, 123.
15. O. Benomar, T. R. Bedding, D. Stello, S. Deheuvels, **T. R. White**, J. Christensen-Dalsgaard. 2012, ApJ, 745, L33.

16. T. Appourchaux, & 22 co-authors including **T. R. White**. 2012, A&A, 537, A134.
17. O. Creevey, & 36 co-authors including **T. R. White**. 2012, A&A, 537, A111.
18. **T. R. White**, T. R. Bedding, D. Stello, J. Christensen-Dalsgaard, D. Huber, H. Kjeldsen, 2011, ApJ, 743, 161.
19. **T. R. White**, T. R. Bedding, D. Stello, et al. 2011, ApJ, 742, L3.
20. V. Silva Aguirre, & 41 co-authors including **T. R. White**. 2011, ApJ, 740, L2.
21. T. L. Campante, & 35 co-authors including **T. R. White**. 2011, A&A, 534, A6.
22. G. A. Verner, & 26 co-authors including **T. R. White**. 2011, MNRAS, 415, 3539.
23. **T. R. White**, T. R. Bedding, D. Stello, D. W. Kurtz, M. S. Cunha, D. O. Gough, 2011, MNRAS, 415, 1638.
24. L. A. Balona, & 10 co-authors including **T. R. White**. 2011, MNRAS, 413, 2651.
25. S. Mathur, & 36 co-authors including **T. R. White**. 2011, ApJ, 733, 95.
26. W. J. Chaplin, & 58 co-authors including **T. R. White**. 2011, Science, 332, 213.
27. P. G. Beck, & 25 co-authors including **T. R. White**. 2011, Science, 332, 205.
28. T. R. Bedding, & 33 co-authors including **T. R. White**. 2011, Nature, 471, 608.
29. D. Huber, & 21 co-authors including **T. R. White**. 2011, ApJ, 723, 1607.
30. T. S. Metcalfe, & 57 co-authors including **T. R. White**. 2010, ApJ, 723, 1583.
31. **T. R. White**, B. J. Brewer, T. R. Bedding, D. Stello, H. Kjeldsen, 2010, Communications in Asteroseismology, 161, 39.

## Presentations

1. *Measuring stellar properties with asteroseismology and interferometry*  
Solar Group Seminar, 29 April 2014, Max Planck Institute for Solar System Research, Göttingen, Germany.
2. *Using asteroseismic scaling relations to measure stellar properties of Kepler targets*  
NASA Ames Seminar, 14 April 2014, NASA Ames Research Center, Moffett Field, California, USA.
3. *Testing asteroseismic scaling relations with interferometry*  
Stellar Astrophysics Centre Seminar, 3 September 2013, Aarhus University, Denmark.
4. *Asteroseismology of Sun-Like Stars with Kepler*  
Sydney Institute for Astronomy Seminar, 26 July 2013, University of Sydney, Australia.
5. *The large separation and its scaling relation*  
Sixth Kepler Asteroseismic Science Consortium Workshop, 24 June 2013, Sydney, Australia.
6. *Kepler observations of the asteroseismic binary HD 176465*  
Fifth Kepler Asteroseismic Science Consortium Workshop, 19 June 2012, Balatonalmádi, Hungary.

7. *Kepler observations of the asteroseismic binary HD 176465*  
The Astronomical Society of Australia Annual Scientific Meeting, 2 July 2012, University of New South Wales, Sydney, Australia.
8. *Kepler observations of the asteroseismic binary HD 176465*  
Fifth Kepler Asteroseismic Science Consortium Workshop, 19 June 2012, Balatonalmadi, Hungary.
9. *Ensemble asteroseismology of solar-like oscillations*  
Jeremiah Horrocks Institute Seminar, 6 June 2012, University of Central Lancashire, Preston, United Kingdom.
10. *Ensemble asteroseismology of solar-like oscillations*  
The Modern Era of Helio- and Asteroseismology, ESF-LFUI Research Conference, 21 May 2012, Obergurgl, Austria.
11. *Ensemble asteroseismology of solar-like oscillations*  
Stellar Astrophysics Centre Seminar, 15 May 2012, Aarhus University, Denmark.
12. *Curing HD 49933 syndrome: resolving the mode identification problem in F stars*  
Sydney Institute for Astronomy Morning Tea, 25 July 2011, University of Sydney, Australia.
13. *Curing HD 49933 syndrome: resolving the mode identification problem in F stars*  
Fourth Kepler Asteroseismic Science Consortium Workshop, 11 July 2011, Boulder, Colorado, USA.
14. *Ensemble asteroseismology of solar-like oscillations*  
AAO 2010 Student Symposium, 26 October 2010, Australian Astronomical Observatory, Sydney, Australia.
15. *Ensemble asteroseismology of solar-like oscillations*  
Sydney Institute for Astronomy Morning Tea, 16 August 2010, University of Sydney, Australia.
16. *Ensemble asteroseismology of solar-like oscillations*  
Sydney Astronomy and Astrophysics Students Symposium, 18 June 2010, University of New South Wales, Sydney, Australia.