

## Refereed Publications – David Kirkman

1. *The Lyman- $\alpha$  forest at redshifts 0.1 – 1.6: good agreement between a large hydrodynamic simulation and HST spectra*, Pascal Paschos, Tridivesh Jena, David Tytler, David Kirkman, and Michael L. Norman, **Monthly Notices of the Royal Astronomical Society**, 2009 *in press*
2. *A Golden Standard Type Ia Supernova SN 2005cf: Observations from the Ultraviolet to the Near-Infrared Wavebands*, Xiaofeng Wang *et al.*, **The Astrophysical Journal**, 2009, volume 697, pages 380-408
3. *The effect of large-scale power on simulated spectra of the Lyman- $\alpha$  forest*, David Tytler, Pascal Paschos, David Kirkman, Michael L. Norman, and Tridivesh Jena, **Monthly Notices of the Royal Astronomical Society**, 2009, volume 393, pages 723-758
4. *Metal absorption systems in spectra of pairs of QSOs: how absorbers cluster around QSOs and other absorbers*, David Tytler, Mark Gleed, Carl Melis, Angela Chapman, David Kirkman, Dan Lubin, Pascal Paschos, Tridivesh Jena, and Arlin Crofts, **Monthly Notices of the Royal Astronomical Society**, 2009, volume 392, pages 1539-1572
5. *The transverse proximity effect in the  $z \sim 2$  Lyman- $\alpha$  forest suggests QSO episodic lifetimes of  $\sim 1$  Myr*, David Kirkman and David Tytler, **Monthly Notices of the Royal Astronomical Society**, 2008, volume 391, pages 1457-1471
6. *A catalogue of absorption lines in eight Hubble Space Telescope/STIS E230M  $1.0 < z < 1.7$  quasar spectra*, Nikola Milutinovic, Toru Misawa, Ryan S. Lynch, Joseph R. Masiero, Christopher Palma, Jane C. Charlton, David Kirkman, Samuel Bockenhauer and David Tytler, **Monthly Notices of the Royal Astronomical Society**, volume 382, pages 1094-1104, 2007
7. *Spectroscopic analysis of H I absorption line systems in 40 HIRES quasars*, Toru Misawa, David Tytler, Masanori Iye, David Kirkman, Nao Suzuki, Dan Lubin and Nobunari Kashikawa, **The Astrophysical Journal**, volume 134, pages 1634-1654, 2007
8. *A census of intrinsic narrow absorption lines in the spectra of quasars at  $z = 2 - 4$* , Toru Misawa, Jane C. Charlton, Michael Eracleous, Rajib Ganguly, David Tytler, David Kirkman, Nao Suzuki and Dan Lubin, **Astrophysical Journal Supplement**, volume 171, pages 1-28, 2007
9. *Continuous statistics of the Lyman- $\alpha$  forest at  $0 < z < 1.6$ : the mean flux, flux distribution and autocorrelation from Hubble Space Telescope FOS spectra*, David Kirkman, David Tytler, Dan Lubin and Jane Charlton, **Monthly Notices of the Royal Astronomical Society**, volume 376, pages 1227-1237, 2007
10. *Spectral shape of the UV ionizing background and OVI absorbers at  $z \sim 1.5$  towards HS 0747+4259*, Dieter Reimers, Irina I. Agafonova, Sergei A. Levshakov, J.-J. Hagen, Cora Fechner, David Tytler, David Kirkman and Sebastian Lopez, **Astronomy and Astrophysics**, volume 449, pages 9-22, 2006
11. *Signature of Galactic Outflows as Absorption-Free Gaps in the Ly-alpha Forest* Taotao Fang, Abraham Loeb, David Tytler, David Kirkman, and Nao Suzuki, **The Astrophysical Journal**, *submitted*, 2005 (astro-ph/0505182)
12. *Intergalactic HeII absorption towards QSO 1157+3143* Dieter Reimers, Cora Fechner, H.-J. Hagen, Peter Jakobsen, David Tytler and David Kirkman, **Astronomy and Astrophysics**, volume 442, pages 63-68, 2005

13. *A Concordance Model of the Lyman-alpha Forest at  $z = 1.95$* , Tridivesh Jena, Michael L. Norman, David Tytler, David Kirkman, Nao Suzuki, Angela Chapman, Carl Melis, Geoffrey So, Brian W. O'Shea, Wen Lin, Dan Lubin, Dieter Reimers, Eckardt Janknecht, and Cora Fechner, **Monthly Notices of the Royal Astronomical Society**, volume 361, pages 70-96, 2005
14. *The H I opacity of the intergalactic medium at redshifts  $1.6 < z < 1.9$* , David Kirkman, David Tytler, Nao Suzuki, Carl Melis Susan Hollywood, Kory James, Geoffrey So, Dan Lubin, Tridivesh Jena, Michael L. Norman, and Pascal Paschos, **Monthly Notices of the Royal Astronomical Society**, volume 360, pages 1373-1380, 2005
15. *Predicting QSO continua in the Lyman alpha forest*, Nao Suzuki, David Tytler, David Kirkman, John M. O'Meara, and Dan Lubin, **The Astrophysical Journal**, volume 618, page 592, 2005
16. *H I gas in higher density regions of the intergalactic medium*, T. Misawa, D. Tytler, M. Iye, P. Paschos, M. Norman, D. Kirkman, J. O'Meara, N. Suzuki and N. Kashikawa, **The Astronomical Journal**, volume 128, page 2954, 2004
17. *The Kast Ground-based Ultraviolet Spectral Survey of 79 Quasi-stellar Objects at Redshift 2 for Lyman- $\alpha$  Forest and Metal Absorption*, David Tytler, John M. O'Meara, Nao Suzuki, David Kirkman, Dan Lubin, and Adam Orin, **The Astronomical Journal**, volume 128, page 1058, 2004
18. *Cosmological parameters  $\sigma_8$ , the baryon density  $\Omega_b$ , and the UV background intensity from a calibrated measurement of H I Lyman alpha absorption at  $z = 1.9$* , David Tytler, David Kirkman, John M. O'Meara, Nao Suzuki, Adam Orin, Dan Lubin, Pascal Paschos, Tridivesh Jena, Wen Lin, and Mike Norman, **The Astrophysical Journal**, volume 617, page 1, 2004
19. *The Cosmological Baryon Density from the Deuterium to Hydrogen Ratio in QSO Absorption Systems: D/H towards Q1243+3047*, David Kirkman, David Tytler, Nao Suzuki, John M. O'Meara, and Dan Lubin, **Astrophysical Journal Supplement**, volume 149, page 1 2003,
20. *Power spectrum and intermittency of the transmitted flux of QSOs Ly-Alpha absorption spectra*, Priya Jamkhedkar, Long-Long Feng, Wei Zheng, David Kirkman, David Tytler, and Li-Zhi Fang, **Monthly Notices of the Royal Astronomical Society**, volume 343, page 1110, 2003
21. *Relative Flux Calibration of Keck HIRES Echelle Spectra*, Nao Suzuki, David Tytler, David Kirkman, John M. O'Meara, and Dan Lubin, **Publications of the Astronomical Society of the Pacific**, volume 115, page 1050, 2003
22. *Multiple field of view layer-oriented adaptive optics. Whole sky coverage on 8-m class telescopes and beyond*, R. Ragazzoni, E. Diolaiti, J. Farinato, E. Fedrigo, E. Marchetti, M. Tordi, and D. Kirkman, **Astronomy and Astrophysics**, volume 396, page 731, 2002
23. *Toward a precise measurement of Matter Clustering: Ly $\alpha$  forest data at redshifts 2-4*, Rupert A.C. Croft, David H. Weinberg, Mike Bolte, Scott Burles, Lars Hernquist, Neal Katz, David Kirkman, and David Tytler, **The Astrophysical Journal**, volume 581, page 20, 2002
24. *The UCSD HIRES/Keck-I Damped Ly $\alpha$  Abundance Database IV. Probing Galactic Enrichment Histories with Nitrogen*, Jason X. Prochaska, Richard B.C. Henry, John M. O'Meara, David Tytler, Arthur M. Wolfe, David Kirkman, Dan Lubin, and Nao Suzuki, **Publications of the Astronomical Society of the Pacific**, volume 114, page 933, 2002

25. *Non-Gaussian Features of Transmitted Flux on QSOs' Ly $\alpha$  absorption: Intermittent Exponent*, Jesus Pando, Long-Long Feng, Priya Jamkhedkar, Wei Zheng, David Kirkman, David Tytler, and Li-Zhi Fang, **The Astrophysical Journal**, volume 574, page 575, 2002
26. *The UCSD HIRES/Keck-I Damped Ly $\alpha$  Abundance Database III. An Empirical Study of Photoionization in the Damped Ly $\alpha$  System Toward GB1759+7539*, Jason X. Prochaska, J. Christopher Howk, John M. O'Meara, David Tytler, Arthur M. Wolfe, David Kirkman, Dan Lubin, and Nao Suzuki, **The Astrophysical Journal**, volume 571, page 693, 2002
27. *A z-invariant Rayleigh beacon wavefront sensor*, Roberto Ragazzoni, M. Tordi, E. Diolaiti, and David Kirkman, **Monthly Notices of the Royal Astronomical Society**, volume 327, page 949, 2001
28. *The UCSD HIRES/Keck I Damped Ly $\alpha$  Abundance Database. I. The Data*, Jason X. Prochaska, Arthur M. Wolfe, David Tytler, Scott Burles, Jeff Cooke, Eric Gawiser, David Kirkman, John M. O'Meara, Lisa Storrie-Lombardi, **The Astrophysical Journal Supplement**, volume 137, page 21, 2001
29. *New Hubble Space Telescope Spectra of QSO PG 1718+4807: No Evidence for Strong Deuterium Absorption*, David Kirkman, David Tytler, John M. O'Meara, Scott Burles, Dan Lubin, Nao Suzuki, Robert F. Carswell, Robert F. Turner, Michael S. Turner, and Joseph E. Wampler, **The Astrophysical Journal**, volume 559, page 23, 2001
30. *The Deuterium to Hydrogen Abundance Ratio toward a Fourth QSO: HS 0105+1619*, John M. O'Meara, David Tytler, David Kirkman, Nao Suzuki, Jason X. Prochaska, Dan Lubin and Arthur M. Wolfe, **The Astrophysical Journal**, volume 552, page 718, 2001
31. *QSOs and absorption line systems surrounding the Hubble deep field*, Daniel E. Vanden Berk, Chris Stoughton, Arlin P.S. Crotts, David Tytler, and David Kirkman, **The Astronomical Journal**, volume 119, issue 6, page 2571, 2000
32. *The detection of large-scale structure via weak gravitational lensing*, David Wittman, J. Anthony Tyson, David Kirkman, Ian Dell'Antonio, and Gary Bernstein, **Nature**, volume 405, issue 6783, page 143, 2000
33. *QSO 0130-4021: A third QSO showing a low Deuterium to Hydrogen Abundance Ratio*, David Kirkman, David Tytler, Scott Burles, Dan Lubin, and John M. O'Meara, **The Astrophysical Journal**, volume 529, page 655, 2000
34. *Deuterium toward Quasar Q0014+813*, Scott Burles, David Tytler and David Kirkman, **The Astrophysical Journal**, volume 519, page 18, 1999
35. *The detection of two distinct high ionization states in a QSO Lyman limit absorption system: evidence for hierarchical galaxy formation at  $z \sim 3$ ?*, David Kirkman and David Tytler, **The Astrophysical Journal**, volume 512, page 12, 1999
36. *Phasing the mirror segments of the Keck telescopes: the broadband phasing algorithm*, Gary Chanan, Mitchell Troy, Frank Dekens, Scott Michaels, Jerry Nelson, Terry Mast, and David Kirkman, **Applied Optics**, volume 37, page 140, 1998
37. *The detection of highly ionized gas via O VI absorption toward QSO HS 1422+2309*, David Kirkman and David Tytler, **The Astrophysical Journal**, volume 489, page 123L, 1997

38. *Intrinsic properties of the  $z \sim 3$  Lyman alpha forest from Keck observations of QSO HS 1946+7658*, David Kirkman and David Tytler, **The Astrophysical Journal**, volume 484, page 672, 1997

## Other Items

1. *Probing quasar outflows with intrinsic narrow absorption lines*, Toru Misawa, Michael Eracleous, Jane C. Charlton, Rajib Ganguly, David Tytler, David Kirkman, Nao Suzuki and Dan Lubin, in **The Central Engine of Active Galactic Nuclei**, ASP Conference Series Volume 373, Edited by Luis C. Ho and Jian-Min Wang, page 291, 2007
2. *Supernova 2004fz in NGC 783*, Alex Filippenko, Ryan J. Foley, Stephen Mochnacki, J.R. Thomson, David Kirkman, and David Tytler, **IAU Circular**, 8840, 2004
3. *Sky coverage in layer-oriented adaptive optics*, Roberto Ragazzoni, Emiliano Diolaiti, Jacopo Farinato, Enrico Fedrigo, Enrico Marchetti, Massimiliano Tordi, and David Kirkman, **Proc. SPIE**, Volume 4494, p. 52, 2002
4. *Z-invariant Wavefront Sensor: sensing a Rayleigh beacon without gating!*, Roberto Ragazzoni, Emiliano Diolaiti, Massimiliano Tordi, and David Kirkman, in **Beyond conventional adaptive optics: a conference devoted to the development of adaptive optics for extremely large telescopes**, Edited by E. Vernet, R. Ragazzoni, S. Esposito and N. Hubin, Garching Germany, 2002 ESO Conference and Workshop Proceedings, Vol. 58, p 417
5. *Multiple Field of View Layer Oriented Adaptive Optics*, Roberto Ragazzoni, Emiliano Diolaiti, Jacopo Farinato, Enrico Fedrigo, Enrico Marchetti, Massimiliano Tordi, and David Kirkman, in **Beyond conventional adaptive optics: a conference devoted to the development of adaptive optics for extremely large telescopes**, Edited by E. Vernet, R. Ragazzoni, S. Esposito and N. Hubin, Garching Germany, 2002 ESO Conference and Workshop Proceedings, Vol. 58, p 75
6. *The Shear Correlation Functions to 30'*, David Wittman, J. Anthony Tyson, and David Kirkman, in **Gravitational Lensing: Recent Progress and Future Goals** ASP Conference Proceedings, Vol 237. Edited by Tereasa G. Brainerd and Christopher S. Kochanek. San Francisco. Page 355, 2001.
7. *A new measurements of the primordial D/H ratio in the intergalactic medium: HS 0105+1619*, John M. O'Meara, David Tytler, David Kirkman, Dan Lubin, Nao Suzuki, Arthur M. Wolfe, and Jason X. Prochaska, in **Cosmic evolution, Papers presented at the symposium "Cosmic Evolution" held at the Institut d'Astrophysique de Paris, which celebrated the 60th birthday of Jean Audouze and James W. Truran**, Edited by Elisabeth Vangioni-Flam, Roger Ferlet, and Martin Lemoine. Published by New Jersey: World Scientific, 2001. ISBN: 9810247869, p.57
8. *Supernova 2000bj in Anonymous Galaxy*, David Kirkman, Ian Dell'Antonio, Robert Schommer, Gordon Squires, J. Anthony Tyson, David Wittman, Andy Becker, Christopher Stubbs, and Gary Bernstein, **IAU Circular** 7398, 2000
9. *The Primordial Deuterium Abundance from Quasar Spectra*, David Tytler, John O'Meara, Dan Lubin, Nao Suzuki, Scott Burles and David Kirkman in **The Light Elements and Their Evolution**, IAU Symposium 198, eds. L. da Silva, M. Spite and J.R. de Medeiros, 2000

10. *Cosmology with the Lyman-alpha Forest*, D. Weinberg, S. Burles, A.C. Croft, R. Dave, G. Gomez, L. Hernquist, N. Katz, D. Kirkman, S. Liu, J. Miralda-Escude, M. Pettini, J. Phillips, D. Tytler and J. Wright in **Evolution of Large Scale Structure**, Garching, August 1988
11. *Ionization and abundances of Intergalactic gas*, David Tytler, X.-M. Fan, Scott Burles, Lance Cottrell, Cris Davis, David Kirkman, and Lin Zuo, in **QSO Absorption Lines**, Georges Meylan ed., 1995
12. *High-speed seeing measurements at the Keck telescope*, Frank Dekens, David Kirkman, Gary Chanan, Terry Mast, Jerry Nelson, Garth Illingworth, and Peter Wizinowich, **Proc. SPIE**, volume 310, page 2201, 1994
13. *Electrostatic ion thruster optical calculations*, John Whealton, David Kirkman, and Richard Reardon, **Proceedings of the 32'nd Joint Propulsion Conference**, Nashville TN., 1992