

CURRICULUM VITAE DANAIL OBRESCHKOW (23 FEBRUARY 2017)



Date of birth: 3 January 1980, Switzerland
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EMPLOYMENTS

Oct 2011 – present **Research Associate Professor** in astrophysics (University of Western Australia)
Jan 2005 – present **Part-time manager and specialist** on zero-g flights (European Space Agency)
Jan 2011 – Sep 2011 **Manager and experimenter** on zero-g flights (EPFL, Switzerland)
Jan 2010 – Dec 2010 **Manager of R&D** in automotive industry (TWT GmbH, Germany)
May 2009 – Dec 2009 **Postdoctoral Researcher** in astrophysics (University of Oxford, UK)

QUALIFICATIONS

Nov 2005 – Apr 2009 **PhD in astrophysics** (University of Oxford, UK) with Prof. Steve Rawlings
Title: “The Cosmic Evolution of Atomic and Molecular Hydrogen in Galaxies”
Sep 1999 – Apr 2005 **MSc in physics**, grade 5.86 / 6.0 = 98% (EPFL, Switzerland)
Thesis: “Theory of Polaron States in Pyramidal GaAs/AlGaAs Quantum Dots”
Aug 2002 – Jun 2003 Academic exchange year (Carnegie Mellon University, USA)
Aug 1993 – Sep 1999 High school baccalaureate in economics (Gymnasium Friedberg, Switzerland)

GRANTS AND AWARDS (approximate values in Australian \$)

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| November 2017 | Young Tall Poppy Award of the Year 2017 | \$3,000 |
| October 2015 | ARC Discovery Project Award (lead K. Glazebrook, for 2016–2018) | \$560,800 |
| 2011 – 2015 | Six UWA Research Awards (19.7k, 10k, 17.2k, 19k, 19.3k, 20k) | \$105,200 |
| 2006 – 2017 | Seven zero-g flight grants of the European Space Agency ESA | 7 x \$100,000 |
| June 2013 | UWA Young Investigator Award for Outstanding Research | \$2,000 |
| October 2013 | ARC Discovery Project Award (lead C. Power, for 2014–2016) | \$393,000 |
| October 2012 | ARC Discovery Project Award (lead G. Lewis, for 2013–2015) | \$390,000 |
| August 2010 | German Research Foundation Grant for Clean Energy Research | \$150,000 |

PANEL/COMMITTEE RESPONSIBILITIES

Since 2014 Chair of the Committee for Development, Equality and Inclusion at UWA/ICRAR
Since 2013 Member of post-doctoral selection panels at UWA/ICRAR (4 times)
Since 2012 Assessor ARC (10 Discovery Projects, 2 Future Fellows, 1 DECRA)
Since 2011 External PhD examiner (2 theses in hydrodynamics and astrophysics)

EXTRACURRICULAR

Aviation: International Private Pilot License (PPL) obtained in Oxford (since 2008)
Music: Piano and bass player, member of the Inigo Jones Band in Oxford (2006–2009)
Languages: Proficient in English, German and French

SUPERVISION AND TEACHING

Teaching:

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|---------------------|--|
| Feb 2012 – present | Lecturing astronomy and astrophysics for undergraduates at UWA (Australia) |
| Jan 2003 – Jun 2003 | Physics tutorials for undergraduates at the Carnegie Mellon University (USA) |
| Dec 2000 – Apr 2001 | Physics for high school students, Gymnasium Friedberg (Switzerland) |

Postdoctoral researchers:

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| 2016 – present | Liang Wang, hydrodynamic simulations of galaxies |
| 2015 – present | Dan Taranu, hydrodynamic simulations and kinematic modelling of galaxies |

PhD students:

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| 2015 – present | Kamran Ali (ICRAR), “Non-linear Information of Cosmic Large-Scale Structure” |
| 2014 – present | Outi Supponen (EPFL), “Bubble collapse in pressure field anisotropies” |
| 2013 – 2016 | Paul Scott-Taylor (ICRAR), “Cosmological simulations of radio galaxies” |
| 2014 – 2016 | Rebecca Lange (ICRAR), “Bubble collapse in pressure field anisotropies” |
| 2013 – 2016 | Damien Macpherson (ICRAR), “Radio/infrared afterglows of γ -ray bursts” |
| 2012 – 2016 | Scott Meyer (ICRAR), “Extended Tully-Fisher relations using HI stacking” |

Master students:

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| 2016 – present | Austin Shen (ICRAR), “Tidal Energy - an Astrophysical Perspective” |
| 2015 – 2016 | Kirsty Buttler (ICRAR), “Angular Momentum in Dwarf Galaxies” |
| 2015 – 2016 | Lesley Maddox (ICRAR), “Kinematic Modelling of Disk Galaxies” |

Visiting students and collaborators:

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| Apr 2016 | Giulia Savorgnan (Post-doc, Swinburne), angular momentum in clumpy galaxies |
| Sep – Nov 2015 | Outi Supponen (PhD student, EPFL, Switzerland), bubbles in microgravity |
| Mar – May 2015 | Jennifer Cooper (undergraduate, US), large scale structure cosmology |
| Oct – Nov 2014 | Simona Bekeraite (PhD student, Potsdam, Germany), angular momentum in IFU |
| Aug – Sep 2014 | Andrew Pham (UWA undergraduate), N -body simulations of swing-by effect |
| Aug – Sep 2014 | Luke Frewer (UWA undergraduate), N -body simulations of Lagrange points |
| Apr 2014, Apr 2015 | Rick Wolstenhulme (PhD student of C. Bonvin), non-linear large-scale structure |
| Feb 2014 | Sammy Mc Sweeney (Curtin undergraduate), large-scale spin alignment |
| Dec 2013 | Rob Basset (PhD student of K. Glazebrook), environment of clumpy disks |
| Aug – Sep 2013 | Qin Yuxiang (undergraduate, USTC, China), large-scale spin alignment |
| Aug – Sep 2012 | Joshua Day (UWA undergraduate), baryonic Tully-Fisher relation |
| Aug – Sep 2012 | Xiangcheng Ma (undergraduate, USTC, China), galaxy velocity function in HIPASS |

SELECTED OUTREACH ACTIVITIES

([Click here for an extensive overview and links to outreach activities.](#))

- Developer of the movie and iOS app [COSMIC EYE](#), viewed **over 150 Million times** on Facebook and downloaded over 200,000 times.
- Founding member and sky demonstrator at the Swiss [Observatory Antares](#)
- Various public lectures (e.g. WA science week 2015 “Journey to the Stars” with ~ 150 attendees, UWA open day 2012 “To the Edge of the Universe” with ~ 300 attendees)
- Approx. 50 news stories in mainstream media (e.g. [BBC World News](#))

1. *A New Spin on Angular Momentum*
University of Sydney (6 December 2016)
2. *A New Spin on Angular Momentum*
Swinburne University of Technology (17 March 2016)
3. *Single collapse luminescence in variable gravity*
CAV2015, Switzerland (8 December 2015)
4. *What we learnt from microgravity*
Rising Stars Award, Perth (11 August 2015)
5. *Evolution of Structure*
Steve Rawlings Memorial Lecture, Cape Town (6 December 2014)
6. *A new Spin on Spiral Galaxies*
Colloquium at ETH Zurich, Switzerland (24 March 2014)
7. *De Revolutionibus Orbium Galacticum: Angular Momentum in Spiral Galaxies*
Colloquium at Swinburne University (27 November 2013)
8. *De Revolutionibus Orbium Galacticum: Angular Momentum in Spiral Galaxies*
Colloquium at ESO Headquarter, Germany (29 October 2013)
9. *Gas and Angular Momentum in Late-type Galaxies*
Colloquium at Geneva Observatory, Switzerland (13 September 2013)
10. *Gas and Angular Momentum in Late-type Galaxies*
Colloquium at University of Oxford, UK (12 September 2013)
11. *Cosmic Structure Beyond the Power Spectrum*
Colloquium at Melbourne University (21 August 2013)
12. *Modelling HI & CO in Cosmological Simulations*
SURFS Meeting, Perth, Australia (21 March 2013)
13. *The Message of Cold Gas Based on Simulations*
European Week of Astronomy and Space Science, Rome, Italy (3 July 2012)
14. *The Quest for Weightlessness*
Arecibo Observatory, Puerto Rico (4 April 2013)
15. *Modelling the Cosmic Evolution of Atomic and Molecular Gas in Galaxies*
European Week of Astronomy and Space Science, Rome, Italy (2 July 2012)
16. *Large-Scale Semi-Analytic Galaxy Simulations*
SKA Conference, Cape Town, South Africa (1 February 2012)
17. *Modelling Gas in Galaxies - A Semi-Analytic Approach*
SKA Conference, Cape Town, South Africa (24 January 2012)
18. *The Conquest of Weightlessness*
Christmas Lecture at the University of Western Australia (16 December 2011)
19. *What can we learn from cavitation in microgravity?*
Colloquium presented at ALSTOM Turbine Manufacturing, France (1 September 2011)
20. *Star-Formation History Connected to the Expansion of the Universe*
Conference at Oxford University, UK (29 July 2010)
21. *Why Molecules Dominate High-z Galaxies*
Conference at Ringberg Castle, Germany (16 November 2009)
22. *The Cosmic Decline of the H₂/HI Ratio*
Colloquium at MPA, Garching, Germany (5 June 2009)
23. *In the Beginning was the Hydrogen*
European Week of Astronomy and Space Science, UK (8 January 2009)
24. *The Fate of Hydrogen*
SKA Meeting Malta (8 January 2009)
25. *The HI-Mass Tully-Fisher Relation*
SKA Conference Perth, Australia (2 April 2008)
26. *Simulating the Hydrogen Line Emission*
SKA Conference, Lisbon, Portugal (8 January 2008)

LIST OF PEER-REVIEWED PUBLICATIONS

Active years since PhD = 6.0, Number of publications = 57 (20 as first author),
Number of citations = 1308 (660), H-index = 18 (15), m-index = 2.6 (2.1)

Only peer-reviewed publications are listed. The numbers of citations are drawn from Google Scholar as of 20 February 2017. Journal impact factors (IF) and are those of the official ISI Journal Citation Report 2015. Peer-reviewed proceedings are marked with ‘-’ under IF.

FIVE MOST IMPORTANT PUBLICATIONS

| # | Reference | IF | Cites |
|------|--|-------|-------|
| [1] | D. Obreschkow , P. Kobel, N. Dorsaz, A. de Bosset, C. Nicollier, and M. Farhat. “Cavitation Bubble Dynamics inside Liquid Drops in Microgravity”, <i>Phys. Rev. Lett.</i> 97, 094502 (2006). | 7.645 | 64 |
| [12] | D. Obreschkow , M. Tinguely, N. Dorsaz, Ph. Kobel, A. de Bosset, and M. Farhat. “A Universal Scaling Law for Jets of Collapsing Bubbles”, <i>Phys. Rev. Lett.</i> 107, 204501 (2011). | 7.645 | 27 |
| [25] | D. Obreschkow and K. Glazebrook. “Fundamental Mass-Spin-Morphology Relation of Spiral Galaxies”, <i>Astrophys. J.</i> , 784, 26 (2014). | 5.909 | 26 |
| [6] | D. Obreschkow , D. Croton, G. De Lucia, S. Khochfar, and S. Rawlings. “Simulation of the Cosmic Evolution of Atomic and Molecular Hydrogen in Galaxies”, <i>Astrophys. J.</i> , 698, 1467-1484 (2009). | 5.909 | 115 |
| [3] | R. J. Wilman, L. Miller, M. Jarvis, T. Mauch, F. Levrier, F. B. Abdalla, S. Rawlings, H.-R. Klöckner, D. Obreschkow , D. Olteanu, and S. Young. “A Semi-Empirical Simulation of the Extragalactic Radio Continuum Sky for Future Radio Telescopes”, <i>Mon. Not. Roy. Astron. Soc.</i> 388, 1335-1348 (2008). | 4.952 | 223 |

ALL PEER-REVIEWED PUBLICATIONS

| # | Reference | IF | Cites |
|------|---|-------|-------|
| [57] | C. d. P. Lagos, <i>et al.</i> . “The catastrophic effect of mergers on the angular momentum and morphology of galaxies in EAGLE”, <i>Mon. Not. Roy. Astron. Soc.</i> , in press (2017). | 4.952 | - |
| [56] | K. Butler, D. Obreschkow and S.-H. Oh. “Angular Momentum of Dwarf Galaxies”, <i>Astrophys. J. Lett.</i> , 834 (2017). | 5.487 | - |
| [55] | D. B. Fisher, <i>et al.</i> . “DYNAMO-HST Survey: Clumps in Nearby Massive Turbulent Disks and the Effects of Clump Clustering on Kiloparsec Scale Measurements of Clumps”, <i>Mon. Not. Roy. Astron. Soc.</i> , in press (2016). | 4.952 | - |
| [54] | R. Bassett, <i>et al.</i> . “Integrated and Resolved Dust Attenuation in Clumpy Star-Forming Galaxies at $0.07 < z < 0.14$ ”, <i>Mon. Not. Roy. Astron. Soc.</i> , in press (2016). | 4.952 | - |

| # | Reference | IF | Cites |
|------|---|-------|-------|
| [53] | D. Obreschkow , K. Glazebrook, V. Kilborn and K. Lutz. “Angular Momentum Regulates Atomic Gas Fractions of Galactic Disks”, <i>Astrophys. J. Lett.</i> , 824 (2016). | 5.487 | – |
| [52] | C. Power, A. Robotham, D. Obreschkow , A. Hobbs, G. Lewis. “Spurious Small-Scale Structure and Discreteness-Driven Relaxation in Cosmological Simulations”, <i>Mon. Not. Roy. Astron. Soc.</i> , in press (2016). | 4.952 | – |
| [51] | O. Supponen, D. Obreschkow , M. Tinguely, P. Kobel, N. Dorsaz and M. Farhat. “Scaling laws for cavitation bubble micro-jets”, <i>J. Fluid Mech.</i> , 802 (2016). | 2.51 | – |
| [50] | S. Bekeraite, <i>et al.</i> “The CALIFA and HIPASS Circular Velocity Function for All Morphological Galaxy Types”, <i>Astrophys. J. Lett.</i> , 827 (2016). | 5.487 | 1 |
| [49] | L. Cortese, <i>et al.</i> “The SAMI Galaxy Survey: the link between angular momentum and optical morphology”, <i>Mon. Not. Roy. Astron. Soc.</i> , 463 (2016). | 4.952 | 3 |
| [48] | M. Prescott, <i>et al.</i> “Galaxy And Mass Assembly (GAMA): The 325 MHz Radio Luminosity Function of AGN and Star Forming Galaxies”, <i>Mon. Not. Roy. Astron. Soc.</i> , 457, 730-744 (2016). | 4.952 | 8 |
| [47] | D. Obreschkow , K. Glazebrook, R. Bassett, D. B. Fisher, R. G. Abraham, E. Wisnioski, A. W. Green, P. J. McGregor, I. Damjanov, A. Popping and I. Jørgensen. “Low Angular Momentum in Clumpy, Turbulent Disk Galaxies”, <i>Astrophys. J.</i> , 815, 97 (2015). | 5.909 | 7 |
| [46] | S. Meyer, M. Meyer, D. Obreschkow and L. Staveley-Smith. “Extended Tully-Fisher Relation using HI Stacking”, <i>Mon. Not. Roy. Astron. Soc.</i> , 455, 3136-3147 (2015). | 4.952 | 3 |
| [45] | O. Supponen, P. Kobel, D. Obreschkow and M. Farhat. “The inner world of a collapsing bubble”, <i>Physics of Fluids</i> , 27, 9 (2015). | 2.017 | 4 |
| [44] | A. Robotham & D. Obreschkow . “Hyper-Fit: Fitting Linear Models to Multidimensional Data with Multivariate Gaussian Uncertainties”, <i>PASA</i> , 32, 1448-6083 (2015). | 3.245 | 18 |
| [43] | R. Deane, D. Obreschkow and I. Heywood. “Strongly Lensed Neutral Hydrogen Emission: Detection Predictions with Current and Future Radio Interferometers”, <i>Mon. Not. Roy. Astron. Soc.</i> , 452, L49-L53 (2015). | 4.952 | 2 |
| [42] | M. Alpaslan, S. Driver, A. S. G. Robotham, D. Obreschkow , E. Andrae, <i>et al.</i> “Galaxy And Mass Assembly (GAMA): trends in galaxy colours, morphology, and stellar populations with large-scale structure, group, and pair environments”, <i>Mon. Not. Roy. Astron. Soc.</i> , 451, 3249-3268 (2015). | 4.952 | 25 |
| [41] | J. J. Bryant, M. S. Owers, A. S. G. Robotham, S. M. Croom, S. P. Driver, M. J. Drinkwater, <i>et al.</i> “The SAMI Galaxy Survey: instrument specification and target selection”, <i>Mon. Not. Roy. Astron. Soc.</i> , 447, 2857-2879 (2015). | 4.952 | 72 |
| [40] | R. Wolstenhulme, C. Bonvin and D. Obreschkow . “Three-point Phase Correlations: A New Measure of Non-Linear Large-Scale Structure”, <i>Astrophys. J.</i> , 804, 132 (2014). | 5.909 | 6 |

| # | Reference | IF | Cites |
|------|--|-------|-------|
| [39] | N. Maddox, K. M. Hess, D. Obreschkow , M. Jarvis and S. L. Blyth. “Variation of galactic cold gas reservoirs with stellar mass”, <i>Mon. Not. Roy. Astron. Soc.</i> , 447, 1610-1617 (2015). | 4.952 | 14 |
| [38] | D. Obreschkow , M. Meyer, A. Popping, C. Power, P. Quinn and L. Staveley-Smith. “The SKA as a Doorway to Angular Momentum”, <i>Advancing Astrophysics with the Square Kilometre Array</i> (2014). | – | 4 |
| [37] | H. R. Klöckner, D. Obreschkow , C. Martins, A. Raccanelli, D. Champion, A. Roy, A. Lobanov, J. Wagner and R. Keller. “Real time cosmology – A direct measure of the expansion rate of the Universe”, <i>Advancing Astrophysics with the Square Kilometre Array</i> (2014). | – | 4 |
| [36] | C. Power, C. D. P. Lagos, B. Qin, C. M. Baugh, D. Cunnamea, J. Fu, H. S. Kim, C. G. Lacey, L. Li, D. Obreschkow , J. Wang, Y. Wang and M. Zhu. “Galaxy Formation & Dark Matter Modelling in the Era of the Square Kilometre Array”, <i>Advancing Astrophysics with the Square Kilometre Array</i> (2014). | – | 1 |
| [35] | M. Meyer, A. Robotham, D. Obreschkow , S. Driver, L. Staveley-Smith and M. Zwaan. “Connecting the Baryons: Multiwavelength Data for HI Surveys”, <i>Advancing Astrophysics with the Square Kilometre Array</i> (2014). | – | 2 |
| [34] | S. L. Blyth, <i>et al.</i> . “Exploring Neutral Hydrogen and Galaxy Evolution with the SKA”, <i>Advancing Astrophysics with the Square Kilometre Array</i> (2014). | – | 8 |
| [33] | A. Popping, M. Meyer, L. Staveley-Smith, D. Obreschkow , G. I. Józsa and D. J. Pisano. “Observations of the Intergalactic Medium and the Cosmic Web in the SKA era”, <i>Advancing Astrophysics with the Square Kilometre Array</i> (2014). | – | 4 |
| [32] | R. Sharp, J. T. Allen, L. M. R. Fogarty, S. M. Croom, L. Cortese, A. W. Green, <i>et al.</i> . “The SAMI Galaxy Survey: Cubism and covariance, putting round pegs into square holes”, <i>Mon. Not. Roy. Astron. Soc.</i> , 446, 1551-1566 (2015). | 4.952 | 29 |
| [31] | A. S. G. Robotham, S. P. Driver, L. J. M. Davies, A. M. Hopkins, I. K. Baldry, N. K. Agius, <i>et al.</i> . “Galaxy And Mass Assembly (GAMA): galaxy close pairs, mergers and the future fate of stellar mass”, <i>Mon. Not. Roy. Astron. Soc.</i> , 444, 3986-4008 (2014). | 4.952 | 28 |
| [30] | D. B. Fisher, K. Glazebrook, A. Bolatto, D. Obreschkow , E. Mentuch-Cooper, E. Wisnioski, R. Bassett, R. G. Abraham, I. Damjanov, A. W. Green, and McGregor, P. “Extreme gas fractions in clumpy, turbulent disk galaxies at $z \sim 0.1$ ”, <i>Astrophys. J. Lett.</i> , 790, L30 (2014). | 5.487 | 16 |
| [29] | R. Bassett, <i>et al.</i> . “DYNAMO II: Coupled Stellar and Ionized Gas Kinematics in Two Low Redshift Clumpy Disks”, <i>Mon. Not. Roy. Astron. Soc.</i> , 442, 3206-3221 (2014). | 4.952 | 10 |
| [28] | M. Reclari, M. Dreyer, S. Tissot, D. Obreschkow , F. M. Wurm, and M. Farhat. “Surface wave dynamics in orbital shaken cylindrical containers”, <i>Physics of Fluids</i> , 26, 5 (2014). | 2.017 | 8 |
| [27] | M. Bruderer, L. D. Contreras-Pulido, M. Thaller, L. Sironi, D. Obreschkow , and M. B. Plenio. “Inverse counting statistics for stochastic and open quantum systems: the characteristic polynomial approach”, <i>New J. of Phys.</i> , 16, 3 (2014). | 3.570 | 10 |

| # | Reference | IF | Cites |
|------|---|-------|-------|
| [26] | M. Alpaslan, A. S. G. Robotham, D. Obreschkow , S. Penny, S. Driver, <i>et al.</i> . “Galaxy and Mass Assembly (GAMA): Fine filaments of galaxies detected within voids”, <i>Mon. Not. Roy. Astron. Soc.</i> , 440, L106 (2014). | 4.952 | 26 |
| [25] | D. Obreschkow and K. Glazebrook. “Fundamental Mass-Spin-Morphology Relation of Spiral Galaxies”, <i>Astrophys. J.</i> , 784, 26 (2014). | 5.909 | 26 |
| [24] | T. Westmeier, R. Jurek, D. Obreschkow , B. Koribalski, and L. Staveley-Smith. “The busy function: a new analytic function for describing the integrated 21-cm spectral profile of galaxies”, <i>Mon. Not. Roy. Astron. Soc.</i> , 438, 1176-1190 (2014). | 4.952 | 12 |
| [23] | D. Obreschkow and M. Meyer. “Precise Tully-Fisher Relations without Galaxy Inclinations”, <i>Astrophys. J.</i> , 777, 2 (2013). | 5.909 | 9 |
| [22] | T. Mauch, H.-R. Klöckner, S. Rawlings, M. Jarvis, M. J. Hardcastle, D. Obreschkow , D. J. Saikia, and M. A. Thompson. “A 325-MHz GMRT survey of the Herschel-ATLAS/GAMA fields”, <i>Mon. Not. Roy. Astron. Soc.</i> , 435, 650-662 (2014). | 4.952 | 24 |
| [21] | D. Obreschkow , M. Tinguely, N. Dorsaz, P. Kobel, A. de Bosset, and M. Farhat. “The Quest for the Most Spherical Bubble”, <i>Exp. in Fluids</i> , 54, 1503 (2013). | 1.570 | 15 |
| [20] | W. Riemer, D. Stoyan, and D. Obreschkow . “Cuboidal Dice and Gibbs Distributions”, <i>Metrika</i> , March issue (2013). | 0.595 | 1 |
| [19] | D. Obreschkow , X. Ma, M. Meyer, C. Power, M. Zwaan, L. Staveley-Smith, and M. J. Drinkwater. “Confronting Cold Dark Matter Predictions with Observed Galaxy Rotations”, <i>Astrophys. J.</i> , 766 137 (2013). | 5.909 | 17 |
| [18] | D. Obreschkow , C. Power, M. Bruderer, and C. Bonvin. “A Robust Measure of Cosmic Structure beyond the Power-Spectrum: Cosmic Filaments and the Temperature of Dark Matter”, <i>Astrophys. J.</i> , 762, 115 (2013) | 5.909 | 15 |
| [17] | M. Tinguely, D. Obreschkow , P. Kobel, N. Dorsaz, A. de Bosset, and M. Farhat. “Energy partition at the collapse of spherical cavitation bubbles”, <i>Phys. Rev. E</i> , 86, 046315 (2012) | 2.252 | 7 |
| [16] | J. E. Field, J.-J. Camus, M. Tinguely, D. Obreschkow , and M. Farhat. “Cavitation in impacted drops and jets and the effect on erosion damage thresholds”, <i>Wear</i> , 290-291, 154-160 (2012). | 2.323 | 27 |
| [15] | D. Obreschkow , M. Bruderer, M. and Farhat. “Analytical Approximations for the Collapse of an Empty Spherical Bubble”, <i>Phys. Rev. E</i> , 85 (2012). | 2.252 | 15 |
| [14] | M. Bruderer, K. Franke, S. Ragg, W. Belzig, and D. Obreschkow . “Exploiting the boundary states of imperfect spin chains for high-fidelity state transfer”, <i>Phys. Rev. A</i> , 85, 022312 (2012). | 2.765 | 24 |
| [13] | D. Obreschkow , I. Heywood, and S. Rawlings. “Detecting cold gas z=3 with ALMA and SKA”, <i>Astrophys. J.</i> , 743, 84 (2011). | 5.909 | 17 |

| # | Reference | IF | Cites |
|------|--|-------|-------|
| [12] | D. Obreschkow , M. Tinguely, N. Dorsaz, Ph. Kobel, A. de Bosset, and M. Farhat. “A Universal Scaling Law for Jets of Collapsing Bubbles”, <i>Phys. Rev. Lett.</i> 107, 204501 (2011). | 7.645 | 27 |
| [11] | D. Obreschkow , N. Dorsaz, Ph. Kobel, A. de Bosset, M. Tinguely, and M. Farhat. “Confined Shocks inside Isolated Liquid Volumes – A New Path of Erosion?”, <i>Phys. Fluids</i> 23, 101702 (2011). | 1.942 | 11 |
| [10] | D. Obreschkow , I. Heywood, H.-R. Klöckner, F. Levrier, and S. Rawlings. “A Virtual Sky with Extragalactic HI- and CO-Lines for the SKA and ALMA”, <i>Astrophys. J.</i> , 703, 1890-1903 (2009). | 5.909 | 69 |
| [9] | D. Obreschkow , I. Heywood, H.-R. Klöckner, and S. Rawlings. “A Heuristic Prediction of the Cosmic Evolution of the CO-Luminosity Functions”, <i>Astrophys. J.</i> , 702, 1321-1335 (2009). | 5.909 | 58 |
| [8] | D. Obreschkow and S. Rawlings. “Compactness of Cold Gas in High-Redshift Galaxies”, <i>Mon. Not. Roy. Astron. Soc.</i> , 400, 665-669 (2009). | 4.952 | 14 |
| [7] | D. Obreschkow and S. Rawlings. “The Cosmic Decline in the H ₂ /HI Ratio in Galaxies”, <i>Astrophys. J. Lett.</i> , 696, L129-L132 (2009). | 5.487 | 87 |
| [6] | D. Obreschkow , D. Croton, G. De Lucia, S. Khochfar, and S. Rawlings. “Simulation of the Cosmic Evolution of Atomic and Molecular Hydrogen in Galaxies”, <i>Astrophys. J.</i> , 698, 1467-1484 (2009). | 5.909 | 115 |
| [5] | D. Obreschkow and S. Rawlings. “Understanding the H ₂ /HI Ratio in Galaxies”, <i>Mon. Not. Roy. Astron. Soc.</i> , 394, 1857-1874 (2009). | 4.952 | 71 |
| [4] | P. Kobel, D. Obreschkow , N. Dorsaz, A. de Bosset, and M. Farhat. “Techniques for Generating Centimetric Drops in Microgravity and App. to Cavitation Studies”, <i>Exp. in Fluids</i> , 47, 39-48 (2009). | 1.570 | 10 |
| [3] | R. J. Wilman, L. Miller, M. Jarvis, T. Mauch, F. Levrier, F. B. Abdalla, S. Rawlings, H.-R. Klöckner, D. Obreschkow , D. Olteanu, and S. Young. “A Semi-Empirical Simulation of the Extragalactic Radio Continuum Sky for Future Radio Telescopes”, <i>Mon. Not. Roy. Astron. Soc.</i> 388, 1335-1348 (2008). | 4.952 | 223 |
| [2] | D. Obreschkow , F. Michelini, S. Dalessi, E. Kapon, and M.-A. Dupertuis. “Nonorthogonal Theory of Polarons and Application to Pyramidal Quantum Dots”, <i>Phys. Rev. B</i> 76, 035329 (2007). | 3.718 | 18 |
| [1] | D. Obreschkow , P. Kobel, N. Dorsaz, A. de Bosset, C. Nicollier, and M. Farhat. “Cavitation Bubble Dynamics inside Liquid Drops in Microgravity”, <i>Phys. Rev. Lett.</i> 97, 094502 (2006). | 7.645 | 64 |

PHD THESIS: “The Cosmic Evolution of Atomic and Molecular Hydrogen in Galaxies”, University of Oxford, August 2009, Supervised by Prof. Steve Rawlings

MSC THESIS: “Theory of Polaron States in Pyramidal GaAs/AlGaAs Quantum Dots”, EPFL, June 2005, Supervised by Dr. Marc-André Dupertuis