

CURRICULUM VITÆ

MICHAEL J. HUDSON

December 10, 2023

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Waterloo ON N2L 3G1, Canada
E-mail: mike.hudson@uwaterloo.ca
Work: 519-888-4567 x42212
<http://mjudson.uwaterloo.ca>
- POSITIONS: 7/2014– Professor, Dept. of Physics & Astronomy, University of Waterloo
9/2010–8/2016 Associate Dean for Computing, Faculty of Science,
9/2007–8/2009 University of Waterloo
7/2005–6/2014 Associate Professor, Dept. of Physics, University of Waterloo
9/1999–6/2005 Assistant Professor, Dept. of Physics, University of Waterloo
7/1995–8/1999 Canadian Institute for Theoretical Astrophysics National Fellow
and Postdoctoral Research Associate,
Dept. of Physics & Astronomy, University of Victoria
1/1993–6/1995 Postdoctoral Research Assistant,
Dept. of Physics, University of Durham
- SABBATICAL 4/2018–5/2018 ASTRO-3D Distinguished Visitor, University of Sydney
AND 4/2018–5/2018 Distinguished Visitor, Australian Astronomical Observatory
VISITING 2/2018–3/2018 Visiting Professor, Swinburne University
POSITIONS: 1/2018–1/2018 Distinguished Visitor, Australian National University
11/2017–12/2017 Visiting Fellow, University of Cape Town
9/2017–10/2017 Sabbatical Visitor, Institut d’Astrophysique de Paris
9/2009–7/2010 Sabbatical Visitor, Institut d’Astrophysique de Paris
3/2006–4/2006 Sabbatical Visitor, University of Victoria
2/2006–3/2006 Visiting Associate Astronomer, University of California Observatories
9/2002–12/2002 Canadian Institute for Theoretical Astrophysics Senior Fellow
- EDUCATION: Ph. D. in Astronomy (May 1993)
Institute of Astronomy, University of Cambridge
Title: *The Nearby Universe: Maps, Mass and Motion*
Supervisor: Prof. D. Lynden-Bell
- PRIZES U. Waterloo Outstanding Performance Award, 2019
AND U. Waterloo Outstanding Performance Award, 2016
AWARDS: U. Waterloo Outstanding Performance Award, 2014
U. Waterloo Outstanding Performance Award, 2005
Canadian Institute for Astrophysics Senior Fellowship, 2002
Premiers’ Research Excellence Award, 2000

RESEARCH INTERESTS

- Cosmology: Gravitational lensing
- Cosmology: Large-scale structure and cosmic flows
- Galaxy formation and evolution: quenching and environmental processes

SCIENTIFIC COLLABORATIONS

- Ultraviolet Near-Infrared Northern Survey:
 - Lead of Gravitational Lensing Team;
 - Lead of Waterloo-Hawaii IfA G-band Survey (Subaru Telescope);
 - Lead Scientist for r -band component of Canada-France Imaging Survey (CFH Telescope).
- Euclid Satellite Space Mission Consortium:
 - Co-lead of Galaxy-Galaxy Lensing Work Package;
 - Member of Euclid Weak Lensing Science Working Group;
 - Canadian national representative on the Board of the Euclid Consortium
- Member of the Aquila Consortium

TELESCOPE TIME

- Waterloo-Hawaii IfA g -band Survey (WHIGS), 2020 – 2023, Subaru Telescope, 13 nights (in kind value: \$3M CAD), Michael Hudson, PI.
- Canada-France Imaging Survey (CFIS) and Ultraviolet Near-Infrared Northern Survey (UNIONS), 2017 – 2023, Canada-France-Hawaii Telescope, 415 nights (in kind value: \$14M CAD), Co-I and r -band lead.

RESEARCH FUNDING

- NSERC Alliance NOVA-NSERC-FRQNT, 2023-2026, \$225,000 (54,750 to Hudson). Yasher Hezaveh, PI (4 Co-Is).
- Canadian Space Agency Grant, 2021 – 2024, \$150,000. Michael Hudson, PI.
- NSERC Discovery Grant, 2019 – 2024, \$205,000. Michael Hudson, PI.
- Mitacs Globalink Award for S. Boruah, 2018, \$6000
- Mitacs Globalink Award for I. Spitzer, 2018, \$7000
- Mitacs Sorbonne Fellowship for S. Turnbull, 2015, \$5000
- NSERC Discovery Grant, 2014 – 2019, \$210,000. Michael Hudson, PI.
- CITA National Fellowship for G. Lavaux, 2011 – 2013, \$26,000
- NSERC Discovery Grant, 2009 – 2014, \$175,000. Michael Hudson, PI.
- NASA HST Archival Research, 2005 – 2006, \$USD 97,930. Michael Hudson, PI (3 Co-Is).
- NSERC Discovery Grant, 2004 – 2009, \$191,500. Michael Hudson, PI.

- CFI Major Infrastructure Grant, 2004, \$19,000,000. Hugh Couchman, PI (100 Co-Is).
- OIT Major Infrastructure Grant, 2004, \$19,000,001. Hugh Couchman, PI (100 Co-Is).
- CITA Senior Fellowship, 2002, \$10,000. Michael Hudson, PI.
- NSERC Collaborative Research Opportunity Grant, 2001 – 2004, \$2,350,000. Ray Carlberg, PI (30 Co-Is).
- CFI New Opportunities Grant, 2001, \$150,000. Jan Kycia, PI (4 Co-Is).
- AAS Chretien International Research Grant, 2001 – 2003, \$17,500. Michael Hudson, PI.
- OIT New Opportunities Grant, 2001, \$150,000. Jan Kycia, PI (4 Co-Is).
- NSERC Equipment Grant, 2000, \$55,000. Michel Fich, PI (4 Co-Is).
- U. Waterloo R.A. Support Program Grant, 2000, \$6,750. Michael Hudson, PI.
- ORDCF Premier's Research Excellence Award, 2000 – 2004, \$100,000. Michael Hudson, PI.
- NSERC Operating Grant, 2000 – 2003, \$90,600. Michael Hudson, PI.
- CFI Major Infrastructure Grant, 2000 – 2001, \$6,616,620. Michael Bauer, PI (50 Co-Is).
- OIT Major Infrastructure Grant, 2000 – 2001, \$6,616,620. Michael Bauer, PI (50 Co-Is).
- U. Waterloo Startup Grant, 1999, \$55,000. Michael Hudson, PI.

GRADUATE STUDENTS AND POSTDOCS SUPERVISED

- Martine Campbell (M.Sc.) 2023-
- Darshak Patel (M.Sc.) 2023-
- Jack Elvin-Poole (Postdoc) 2022-
- Jordan Ducatel (M.Sc.) 2022-
- Andrew Reeves (Ph.D.) 2021-2023
- Hunter Martin (Ph.D.) 2020-
- Suraj Srinivasan (Ph.D.) 2019-
- Bailey Robison (M.Sc.) 2018-2020
- Tianyi Yang (M.Sc.) 2018-2020
- Amber Hollinger (Ph.D.) 2018-
- Isaac Spitzer (Ph.D.) 2016-2022
- Supranta Boruah (Ph.D.) 2016-2020
- Harisah Mehmood (M.Sc.) 2015-2017
- Paul Charlton (M.Sc.) 2015-2017
- Seth Epps (M.Sc.) 2013-2015
- Morag Scrimgeour (Postdoc) 2013-2014
- Jonathan Carrick (M.Sc.) 2012-2014
- Kyle Oman (M.Sc.) 2011-2013
- Guilhem Lavaux (Postdoc) 2011-2013

- Bryan Gillis (Ph.D.) 2010-2013
- Stephen Turnbull (M.Sc.) 2010-2012
- Bryan Gillis (M.Sc.) 2007-2009
- Steve Allanson (M.Sc.) 2007-2009
- Louise Edwards (Ph.D.) 2005-2006
- Russell Smith (Postdoc) 2002-2005
- Laura Parker (Ph.D.) 2000-2005
- Christian Marinoni (Ph.D.) 1999-2000

Total: 59 HQP including 32 undergraduates

TEACHING

COURSES TAUGHT

| | |
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| Dept. of Physics & Astronomy, University of Waterloo | |
| 2022 | <i>PHYS 239: Computational Physics 2</i> (Undergrad) <i>PHYS 474: Galaxies</i> (Undergrad) <i>PHYS 782: Fundamentals of Astrophysics 2</i> (Grad) |
| 2021 | <i>PHYS 474: Galaxies</i> (Undergrad) <i>PHYS 787: Cosmology</i> (Grad) |
| 2020 | <i>PHYS 782: Fundamentals of Astrophysics 2</i> (Grad) <i>PHYS 239: Computational Physics 2</i> (Undergrad) |
| 2019 | <i>SCI 238: Introductory Astronomy</i> (Undergrad) <i>PHYS 787: Cosmology</i> (Grad) |
| 2018 | <i>PHYS 782: Fundamentals of Astrophysics 2</i> (Grad) |
| 2017 | <i>PHYS 787: Cosmology</i> (Grad) <i>PHYS 239: Computational Physics 2</i> (Undergrad) |
| 2016 | <i>PHYS 474: Galaxies</i> (Undergrad) <i>SCI 238: Introductory Astronomy</i> (Undergrad) |
| 2015 | <i>PHYS 787: Cosmology</i> (Grad) <i>PHYS 474: Galaxies</i> (Undergrad) |
| 2014 | <i>PHYS 475: Galaxies & Cosmology</i> (Undergrad) <i>SCI 238: Introductory Astronomy</i> (Undergrad) |
| 2013 | <i>PHYS 239: Computational Physics 2</i> (Undergrad) <i>PHYS 475: Galaxies & Cosmology</i> (Undergrad) |
| 2012 | <i>SCI 238: Introductory Astronomy</i> (Undergrad) |
| 2011 | <i>PHYS 787: Cosmology</i> (Grad) <i>PHYS 239: Computational Physics 2</i> (Undergrad) |
| 2010 | <i>PHYS 239: Computational Physics 2</i> (Undergrad) |
| 2009 | <i>PHYS 787: Cosmology</i> (Grad) |
| 2008 | <i>PHYS 139: Scientific Computer Programming</i> (Undergrad) <i>PHYS 475: Galaxies & Cosmology</i> (Undergrad) |
| 2007 | <i>PHYS 787: Cosmology</i> (Grad) <i>PHYS 139: Scientific Computer Programming</i> (Undergrad) |

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| | <i>PHYS 475: Galaxies & Cosmology</i> (Undergrad) |
| 2006 | <i>PHYS 475: Galaxies & Cosmology</i> (Undergrad) |
| 2005 | <i>PHYS 787: Cosmology</i> (Grad) |
| | <i>PHYS 475: Galaxies & Cosmology</i> (Undergrad) |
| 2004 | <i>SCI 238: Introductory Astronomy</i> (Undergrad) |
| | <i>PHYS 475: Galaxies & Cosmology</i> (Undergrad) |
| 2003 | <i>PHYS 787: Cosmology</i> (Grad) |
| | <i>PHYS 121: Mechanics, Waves and Heat (Part I)</i> (Undergrad) |
| | <i>PHYS 475: Galaxies & Cosmology</i> (Undergrad) |
| 2002 | <i>SCI 238: Introductory Astronomy</i> (Undergrad) |
| 2001 | <i>SCI 238: Introductory Astronomy</i> (Undergrad) |
| | <i>PHYS 787: Cosmology</i> (Grad) |
| | <i>PHYS 121: Mechanics, Waves and Heat (Part I)</i> (Undergrad) |
| 2000 | <i>SCI 238: Introductory Astronomy</i> (Undergrad) |
| Dept. of Physics & Astronomy, University of Victoria | |
| 1999 | <i>Waves and Introductory Modern Physics</i> (Undergrad) |
| | <i>Fundamentals of Physics</i> (Undergrad) |
| 1996 | <i>Structure Formation in the Universe</i> (Grad) |
| Dept. of Physics, University of Durham | |
| 1993–1994 | <i>Astronomy Laboratory (Final Year Honours)</i> |

PROFESSIONAL ACTIVITIES AND SERVICE

MEMBERSHIP

- Member of the Waterloo Centre for Astrophysics
- Affiliate Member of the Perimeter Institute for Theoretical Physics
- Member of the Canadian Institute for Theoretical Astrophysics, Inc.

REFEREEING

- Typically 5 papers per year for journals including Nature, Nature Astronomy, Astrophysical Journal Letters, Astrophysical Journal, Monthly Notices of the Royal Astronomical Society, Astronomy & Astrophysics, Journal of Cosmology and Astroparticle Physics, Physical Review Letters;
- Several Canadian and UK observing proposals per year.
- Arms-length evaluations for tenure and promotion cases at UK and US Universities, typically 1 or 2 per year.
- Chair, NSERC Major Research Support review of Observatoire Mont-Mégantic

EXTERNAL COMMITTEES

- Conference Scientific Organizing Committees:
 - *Surveys 2 Discoveries*, Stellenbosch, Montreal, May, 2023
 - *Cosmic Flows, Large-scale Structure and Visualisation*, Stellenbosch, South Africa, February, 2020
 - *The Future of Astronomy*, Waterloo, October, 2019
 - *Diving into the Dark*, Cairns, Australia, July 2016
 - *Large-scale Structure and Galaxy Flows*, Quy Nhon, Vietnam, July 2016
 - *Cosmic Flows*, Marseille, France, 2013
 - *Canadian Astronomical Society Annual Meeting*, Waterloo, Canada June 2003 (Chair)
- Member of the Canadian Space Agency / Canadian Astronomical Society Joint Committee on Space Astronomy (2021-)
- Canadian representative on the Euclid Consortium Board (2019-)
- Member of the Waterloo Centre for Astrophysics Governing Board (2019-2022)
- Canadian representative on WFIRST Science Formulation Working Group (2016-2018)
- Canadian representative on WFIRST Science Definition Team (2015)
- Member of Thirty-Metre Telescope Scientific Advisory Committee (2006-2009).

PUBLICATIONS

- [167] Reeves A.M.M., Hudson M.J. & Oman K.A., 2023, *Constraining quenching timescales in galaxy clusters by forward-modelling stellar ages and quiescent fractions in projected phase space*, Monthly Notices of the Royal Astronomical Society, 522, 1779–1799, 2211.09145.
- [166] Ayçoberry E., Ajani V., Guinot A., Kilbinger M., Pettorino V., Farrens S., Starck J.L., Gavazzi R. & Hudson M.J., 2023, *UNIONS: The impact of systematic errors on weak-lensing peak counts*, Astronomy and Astrophysics, 671, A17, 2204.06280.
- [165] Smith S.E.T., Jensen J., Roediger J., Sestito F., Hayes C.R., McConnachie A.W., Cuillandre J.C., Gwyn S., Magnier E., Chambers K., Hammer F., Hudson M., Martin N., Navarro J. & Scott D., 2022, *Discovery of a new Local Group Dwarf Galaxy Candidate in UNIONS: Boötes V*, arXiv e-prints, arXiv:2209.08242, 2209.08242.
- [164] Chan J.H.H., Lemon C., Courbin F., Gavazzi R., Clément B., Millon M., Paic E., Rojas K., Savary E., Vernardos G., Cuillandre J.C., Fabbro S., Gwyn S., Hudson M.J., Kilbinger M. & McConnachie A., 2022, *Discovery of strongly lensed quasars in the Ultraviolet Near Infrared Optical Northern Survey (UNIONS)*, Astronomy and Astrophysics, 659, A140, 2110.09535.
- [163] Guinot A., Kilbinger M., Farrens S., Peel A., Pujol A., Schmitz M., Starck J.L., Erben T., Gavazzi R., Gwyn S., Hudson M.J., Hildebrandt H., Tobias L., Miller L., Spitzer I., Van Waerbeke L., Cuillandre J.C., Fabbro S., McConnachie A. & Mellier Y., 2022, *ShapePipe: A new shape measurement pipeline and weak-lensing application to UNIONS/CFIS data*, Astronomy and Astrophysics, 666, A162, 2204.04798.
- [162] Savary E., Rojas K., Maus M., Clément B., Courbin F., Gavazzi R., Chan J.H.H., Lemon C., Vernardos G., Cañameras R., Schuldt S., Suyu S.H., Cuillandre J.C., Fabbro S., Gwyn S., Hudson M.J., Kilbinger M., Scott D. & Stone C., 2022, *Strong lensing in UNIONS: Toward a pipeline from discovery to modeling*, Astronomy and Astrophysics, 666, A1, 2110.11972.
- [161] Bickley R.W., Ellison S.L., Patton D.R., Bottrell C., Gwyn S. & Hudson M.J., 2022, *Star formation characteristics of CNN-identified post-mergers in the Ultraviolet Near Infrared Optical Northern Survey (UNIONS)*, Monthly Notices of the Royal Astronomical Society, 514, 3294–3307, 2205.14103.
- [160] Rahman W., Trotta R., Boruah S.S., Hudson M.J. & van Dyk D.A., 2022, *New constraints on anisotropic expansion from supernovae Type Ia*, Monthly Notices of the Royal Astronomical Society, 514, 139–163, 2108.12497.
- [159] Roberts I.D., Parker L.C., Gwyn S., Hudson M.J., Carlberg R., McConnachie A., Cuillandre J.C., Chambers K.C., Duc P.A., Furusawa H., Gavazzi R., Hill V., Huber M.E., Ibata R., Kilbinger M., Mei S., Mellier Y., Miyazaki S., Oguri M. & Wainscoat R.J., 2022, *Ram pressure candidates in UNIONS*, Monthly Notices of the Royal Astronomical Society, 509, 1342–1357, 2110.12714.
- [158] Boruah S.S., Lavaux G. & Hudson M.J., 2022, *Bayesian reconstruction of dark matter distribution from peculiar velocities: accounting for inhomogeneous Malmquist bias*, Monthly Notices of the Royal Astronomical Society, 517, 4529–4543.

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- [157] Yang T., Hudson M.J. & Afshordi N., 2022, *A universal profile for stacked filaments from cold dark matter simulations*, Monthly Notices of the Royal Astronomical Society, 516, arXiv:2203.16170, 2203.16170.
- [156] Hollinger A.M. & Hudson M.J., 2021, *Assessing the accuracy of cosmological parameters estimated from velocity – density comparisons via simulations*, Mon. Not. Roy. Astron. Soc., 502, arXiv:2101.04120, 2101.04120.
- [155] Oman K.A., Bahé Y.M., Healy J., Hess K.M., Hudson M.J. & Verheijen M.A.W., 2021, *A homogeneous measurement of the delay between the onsets of gas stripping and star formation quenching in satellite galaxies of groups and clusters*, Mon. Not. Roy. Astron. Soc., 501, 5073–5095, 2009.00667.
- [154] Stahl B.E., de Jaeger T., Boruah S.S., Zheng W., Filippenko A.V. & Hudson M.J., 2021, *Peculiar-velocity cosmology with Types Ia and II supernovae*, Mon. Not. Roy. Astron. Soc., 505, 2349–2360, 2105.05185.
- [153] Bickley R.W., Bottrell C., Hani M.H., Ellison S.L., Teimoorinia H., Yi K.M., Wilkinson S., Gwyn S. & Hudson M.J., 2021, *Convolutional neural network identification of galaxy post-mergers in UNIONS using IllustrisTNG*, Mon. Not. Roy. Astron. Soc., 504, 372–392, 2103.09367.
- [152] Ogiya G., Taylor J.E. & Hudson M.J., 2021, *Evolution of subhalo orbits in a smoothly growing host halo potential*, Mon. Not. Roy. Astron. Soc., 503, 1233–1247, 2102.02786.
- [151] Boruah S.S., Hudson M.J. & Lavaux G., 2021, *Peculiar velocities in the local Universe: comparison of different models and the implications for H_0 and dark matter*, Mon. Not. Roy. Astron. Soc., 507, 2697–2713, 2010.01119.
- [150] Yang T., Hudson M.J. & Afshordi N., 2020, *How dark are filaments in the cosmic web?*, Mon. Not. Roy. Astron. Soc., 498, 3158–3170, 2001.10943.
- [149] Said K., Colless M., Magoulas C., Lucey J.R. & Hudson M.J., 2020, *Joint analysis of 6dFGS and SDSS peculiar velocities for the growth rate of cosmic structure and tests of gravity*, Mon. Not. Roy. Astron. Soc., 497, 1275–1293, 2007.04993.
- [148] Boruah S.S., Hudson M.J. & Lavaux G., 2020, *Cosmic flows in the nearby Universe: new peculiar velocities from SNe and cosmological constraints*, Mon. Not. Roy. Astron. Soc., 498, 2703–2718, 1912.09383.
- [147] Owers M.S., Hudson M.J., Oman K.A., Bland -Hawthorn J., Brough S., Bryant J.J., Cortese L., Couch W.J., Croom S.M., van de Sande J., Federrath C., Groves B., Hopkins A.M., Lawrence J.S., Lorente N.P.F., McDermid R.M., Medling A.M., Richards S.N., Scott N., Taranu D.S., Welker C. & Yi S.K., 2019, *The SAMI Galaxy Survey: Quenching of Star Formation in Clusters I. Transition Galaxies*, Astrophys. J., 873, 52, 1901.08185.
- [146] Wang Y., Bean R., Behroozi P., Chuang C.H., Dell’antonio I., Dickinson M., Dore O., Eisenstein D., Foley R., Glazebrook K., Guzzo L., Hirata C., Ho S., Hudson M., Jain B., Natarajan P., Newman J., Orsi A., Padmanabhan N., Peacock J., Percival W., Rhodes J., Rozo E., Samushia L., Scolnic D., Seo H.J., Spergel D., Strauss M., Wechsler R. & Weinberg D., 2019, *Illuminating the dark universe with a very high density galaxy redshift survey over a wide area*, Bull. Amer. Astr. Soc., 51, 508, 1903.06034.

- [145] Wang Y., Robberto M., Dickinson M., Hillenbrand L.A., Fraser W., Behroozi P., Brinchmann J., Chuang C.H., Cimatti A., Content R., Daddi E., Ferguson H.C., Hirata C., Hudson M.J., Kirkpatrick J.D., Orsi A., Ryan R., Shapley A., Ballardini M., Barkhouser R., Bartlett J., Benjamin R., Chary R., Conroy C., Donahue M., Doré O., Eisenhardt P., Glazebrook K., Helou G., Malhotra S., Moscardini L., Newman J.A., Ninkov Z., Ressler M., Rhoads J., Rhodes J., Scolnic D., Smee S., Valentino F. & Wechsler R.H., 2019, *ATLAS probe: Breakthrough science of galaxy evolution, cosmology, Milky Way, and the Solar System*, Pub. Astron. Soc. Aus., 36, e015, 1802.01539.
- [144] Wang Y., Dickinson M., Hillenbrand L., Robberto M., Armus L., Ballardini M., Barkhouser R., Bartlett J., Behroozi P., Benjamin R.A., Brinchmann J., Chary R.R., Chuang C.H., Cimatti A., Conroy C., Content R., Daddi E., Donahue M., Dore O., Eisenhardt P., Ferguson H.C., Faisst A., Fraser W.C., Glazebrook K., Gorjian V., Helou G., Hirata C.M., Hudson M., Kirkpatrick J.D., Malhotra S., Mei S., Moscardini L., Newman J.A., Ninkov Z., Orsi A., Ressler M., Rhoads J., Rhodes J., Ryan R., Samushia L., Scarlata C., Scolnic D., Seiffert M., Shapley A., Smee S., Valentino F., Vorobiev D. & Wechsler R.H., 2019, *ATLAS Probe: Breakthrough Science of Galaxy Evolution, Cosmology, Milky Way, and the Solar System*, arXiv e-prints, arXiv:1909.00070, 1909.00070.
- [143] Percival W.J., Yèche C., Bilicki M., Font-Ribera A., Hathi N.P., Howlett C., Hudson M.J., McConnachie A.W., Gohar Mohammad F., Newman J.A., Palanque-Delabrouille N., Variu A., Wang Y. & Wilson M.J., 2019, *Cosmology with the MaunaKea Spectroscopic Explorer*, arXiv e-prints, arXiv:1903.03158, 1903.03158.
- [142] Charnock T., Lavaux G., Wandelt B.D., Sarma Boruah S., Jasche J. & Hudson M.J., 2019, *Neural physical engines for inferring the halo mass distribution function*, Monthly Notices of the Royal Astronomical Society, 494, arXiv:1909.06379, 1909.06379.
- [141] Hudson M.J. & Robison B., 2018, *The correlation between the sizes of globular cluster systems and their host dark matter haloes*, Mon. Not. Roy. Astron. Soc., 477, 3869–3885, 1707.02609.
- [140] Content R., Wang Y., Roberto M., Dickinson M., Ferguson H., Hillenbrand L., Fraser W., Behroozi P., Brinchmann J., Cimatti A., Daddi E., Hirata C., Hudson M., Kirkpatrick J.D., Barkhouser R., Bartlett J., Benjamin R., Chary R., Conroy C., Donahue M., Doré O., Eisenhardt P., Glazebrook K., Helou G., Malhotra S., Moscardini L., Ninkov Z., Orsi A., Ressler M., Rhoads J., Rhodes J., Shapley A. & Smee S., 2018, *ATLAS probe for the study of galaxy evolution with 300,000,000 galaxy spectra*, in *Proc. SPIE*, vol. 10698 of *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*, p. 106980I.
- [139] Doré O., Hirata C., Wang Y., Weinberg D., Baronchelli I., Benson A., Capak P., Choi A., Eifler T., Hemmati S., Ho S., Izard A., Jain B., Jarvis M., Kiessling A., Krause E., Massara E., Masters D., Merson A., Miyatake H., Plazas Malagon A., Mandelbaum R., Samushia L., Shapiro C., Simet M., Spergel D., Teplitz H., Troxel M., Bean R., Colbert J., Heinrich C.H., Heitmann K., Helou G., Hudson M., Huff E., Leauthaud A., MacCrann N., Padmanabhan N., Pisani A., Rhodes J., Rozo E., Seiffert M., Smith K., Takada M., von der Linden A., Lupton R., Yoshida N., Wu H.Y. & Zu Y., 2018, *WFIRST Science Investigation Team “Cosmology with the High Latitude Survey” Annual Report 2017*, arXiv e-prints, arXiv:1804.03628, 1804.03628.
- [138] Ibata R.A., McConnachie A., Cuillandre J.C., Fantin N., Haywood M., Martin N.F., Bergeron P., Beckmann V., Bernard E., Bonifacio P., Caffau E., Carlberg R., Côté P., Cabanac R., Chapman S.,

- Duc P.A., Durret F., Famaey B., Fabbro S., Gwyn S., Hammer F., Hill V., Hudson M.J., Lançon A., Lewis G., Malhan K., di Matteo P., McCracken H., Mei S., Mellier Y., Navarro J., Pires S., Pritchett C., Reylé C., Richer H., Robin A.C., Sánchez-Janssen R., Sawicki M., Scott D., Scottez V., Spekkens K., Starkenburg E., Thomas G. & Venn K., 2017, *The Canada-France Imaging Survey: First Results from the u-Band Component*, *Astrophys. J.*, 848, 128, 1708.06356.
- [137] Ibata R.A., McConnachie A., Cuillandre J.C., Fantin N., Haywood M., Martin N.F., Bergeron P., Beckmann V., Bernard E., Bonifacio P., Caffau E., Carlberg R., Côté P., Cabanac R., Chapman S., Duc P.A., Durret F., Famaey B., Fabbro S., Gwyn S., Hammer F., Hill V., Hudson M.J., Lançon A., Lewis G., Malhan K., di Matteo P., McCracken H., Mei S., Mellier Y., Navarro J., Pires S., Pritchett C., Reylé C., Richer H., Robin A.C., Sánchez-Janssen R., Sawicki M., Scott D., Scottez V., Spekkens K., Starkenburg E., Thomas G. & Venn K., 2017, *Chemical Mapping of the Milky Way with The Canada-France Imaging Survey: A Non-parametric Metallicity-Distance Decomposition of the Galaxy*, *Astrophys. J.*, 848.
- [136] Epps S.D. & Hudson M.J., 2017, *The Weak Lensing Masses of Filaments between Luminous Red Galaxies*, *Mon. Not. Roy. Astron. Soc.*, 468, 2605–2613, 1702.08485.
- [135] Okoli C., Scrimgeour M.I., Afshordi N. & Hudson M.J., 2017, *Dynamical friction in the primordial neutrino sea*, *Mon. Not. Roy. Astron. Soc.*, 468, 2164–2175, 1611.04589v2.
- [134] Charlton P.J.L., Hudson M.J., Balogh M.L. & Khatri S., 2017, *The dependence of halo mass on galaxy size at fixed stellar mass using weak lensing*, *Mon. Not. Roy. Astron. Soc.*, 472, 2367–2387, 1707.04924.
- [133] Hudson M.J., 2017, *Large-scale structure: Going with the flow*, *Nature Astronomy*, 1, 0040.
- [132] Oman K.A. & Hudson M.J., 2016, *Satellite quenching time-scales in clusters from projected phase space measurements matched to simulated orbits*, *Mon. Not. Roy. Astron. Soc.*, 463, 3083–3095, 1607.07934v1.
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COLLOQUIA, SEMINARS AND CONFERENCE CONTRIBUTIONS SINCE 2013

- 212. 2022-05-11. Presentation at *CFHT Users Meeting (Strasbourg, France)* conference, “*Weak Lensing Science from UNIONS*”.
- 211. 2022-04-04. Invited Presentation at *Bridging the Gaps (Leiden University, Netherlands)* workshop, “*Galaxy-galaxy lensing*”.
- 210. 2022-03-21. Invited Public talk at the University of Waterloo, Department of Physics and Astronomy, “*Cosmic Mirages*”.
- 209. 2022-03-16. Invited Colloquium at the University of Edinburgh, “*Cosmic flows and weak lensing crank up the tension in cosmology*”.
- 208. 2021-05-10. Presentation at *the Canadian Astronomical Society Annual Meeting (Victoria, Canada)* conference, “*Weak Lensing in UNIONS*”.

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207. 2021-04-09. Invited Colloquium at the Max Planck Institute for Radio Astronomy (Bonn, Germany), “*Cosmic flows crank up the tension in cosmology*”.
 206. 2021-03-10. Invited Presentation at *the Ultraviolet Near-Infrared Optical Northern Survey Annual Meeting* workshop, “*Weak Lensing in UNIONS*”.
 205. 2021-02-24. Invited Presentation at *Cosmology at the Crossroads 2021 (Tehran, Iran)* conference, “*Cosmic flows crank up the tension in cosmology*”.
 204. 2021-01-25. Invited Colloquium at the University of British Columbia, “*Cosmic flows crank up the tension in cosmology*”.
 203. 2020-08-31. Invited Seminar at the University of California, Santa Cruz (Santa Cruz, USA), “*Mass and Light in Filaments of the Cosmic Web*”.
 202. 2020-08-24. Invited Seminar at the University of Queensland (Brisbane, Australia), “*Measuring the cosmological parameters from cosmic flows*”.
 201. 2020-04-09. Invited Seminar at the First Annual CCAT-prime Collaboration Meeting (Waterloo), “*Euclid Science and Synergies*”.
 200. 2020-02-20. Invited Presentation at *Cosmic Flows, Large Scale Structure and Visualisation (Stellenbosch, South Africa)* conference, “*Cosmology and cosmography from peculiar velocities in the nearby Universe*”.
 199. 2020-01-31. Invited Presentation at *The Cosmic Web in the Local Universe (Leiden, Netherlands)* workshop, “*How Dark Are Filaments in the Cosmic Web?*”.
 198. 2019-11-26. Invited Seminar at the Perimeter Institute (Waterloo), “*Cosmology and cosmography from peculiar velocities in the nearby Universe*”.
 197. 2019-11-22. Invited Seminar at Canada-France-Hawaii Telescope (Hawaii, USA), “*CFIS: survey, dataset, science*”.
 196. 2019-11-20. Presentation at *Subaru Telescope 20th Anniversary Symposium (Hawaii USA)* conference, “*First weak lensing results from the UNION Survey*”.
 195. 2019-11-18. Invited Presentation at *Subaru Telescope 20th Anniversary Symposium (Hawaii USA)* conference, “*Euclid Science and Synergies*”.
 194. 2020-10-31. Invited Presentation at *CASCA Long-range Plan Town Hall (Montreal, Canada)* workshop, “*Euclid Science and Synergies*”.
 193. 2019-10-09. Invited Presentation at *Canada-France Imaging Survey Annual Meeting (Strasbourg, France)* workshop, “*Weak Lensing in the CFIS*”.
 192. 2019-05-22. Invited Presentation at *Canada-France-Hawaii Telescope Users Meeting (Montreal, Canada)* workshop, “*Weak Lensing in the CFIS*”.
 191. 2019-04-10. Invited Presentation at *From Deep Learning to the Dark Universe (Windsor, UK)* conference, “*The ”Great Attractor” and other Ofer-densities*”.

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190. 2018-10-19. Presentation at *Massively Parallel Large Area Spectroscopy from Space (Pasadena, USA)* workshop, “*Weighing Filaments in the Cosmic Web with Gravitational Lensing*”.
 189. 2018-10-11. Invited Presentation at *Wide Field Astronomy in Canada (Waterloo)* workshop, “*WFIRST*”.
 188. 2018-07-20. Presentation at *The Physics of Galaxy Scaling Relations and the Nature of Dark Matter (Kingston)* conference, “*Extending galaxy scaling relations to include the dark matter halo using weak gravitational lensing*”.
 187. 2018-07-03. Invited Colloquium at the Kavli Institute for Physics and Mathematics of the Universe (Tokyo, Japan), “*Galaxies and Dark Matter Seen Through a Gravitational Lens*”.
 186. 2018-05-10. Invited Colloquium at the Anglo-Australian Observatory (Sydney, Australia), “*Galaxies and Dark Matter Seen Through a Gravitational Lens*”.
 185. 2018-05-01. Invited Colloquium at Macquarie University, Department of Physics and Astronomy (Sydney, Australia), “*Seeing Dark Matter through a Gravitational Lens*”.
 184. 2018-04-20. Invited Colloquium at the University of Queensland, Department of Physics (Brisbane, Australia), “*Seeing Dark Matter through a Gravitational Lens*”.
 183. 2018-04-06. Invited Seminar at the Sydney Institute for Astronomy (Sydney, Australia), “*Galaxies and Dark Matter Seen Through a Gravitational Lens*”.
 182. 2018-03-16. Invited Public Lecture at Swinburne University (Melbourne, Australia), “*Cosmic Mirages: Seeing Dark Matter with Gravitational Lenses*”.
 181. 2018-03-08. Invited Colloquium at Swinburne University, Centre for Astrophysics and Supercomputing (Melbourne, Australia), “*Galaxies and Dark Matter Seen Through a Gravitational Lens*”.
 180. 2018-01-25. Invited Colloquium at the Australian National University, Research School of Astronomy and Astrophysics (Canberra, Australia), “*The Origin of the Local Group’s 600 km/s Motion with respect to the Cosmic Microwave Background*”.
 179. 2018-01-19. Invited Seminar at the Australian National University, Research School of Astronomy and Astrophysics (Canberra, Australia), “*Mapping the Cosmic Web with Gravitational Lensing*”.
 178. 2017-12-07. Invited Colloquium at the South African Astronomical Observatory (Cape Town, South Africa), “*The co-evolution of galaxies and their dark matter haloes from weak gravitational lensing*”.
 177. 2017-12-05. Invited Colloquium at the University of Cape Town, Department of Astronomy (South Africa), “*The Origin of the Local Group’s Motion*”.
 176. 2017-11-24. Invited Keynote at the International School on Quantum and Nano Computing Systems and Applications (Dayalbagh Educational Institute, India), “*Mapping Dark Matter with Gravitational Lensing*”.
 175. 2017-10-09. Presentation at *AstroInformatics (Cape Town, South Africa)* workshop, “*The Canada-France Imaging Survey and Weak Gravitational Lensing Pipelines*”.

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174. 2017-09-29. Invited Colloquium at the Institut d'Astrophysique de Paris (France), "*The co-evolution of galaxies and their dark matter haloes from weak gravitational lensing*".
 173. 2017-09-21. Presentation at *Galaxy Mergers (Birmingham)* workshop, "*Does size matter? The link between stellar mass, galaxy size and dark matter halo mass from weak gravitation lensing*".
 172. 2017-07-27. Invited Seminar at the Perimeter Institute (Waterloo), "*Weak Lensing Masses of Filaments between LRGs*".
 171. 2017-07-08. Invited Presentation at *Cosmic Web Day (Toronto)* workshop, "*Weak Lensing Masses of Filaments between LRGs*".
 170. 2017-06-14. Invited Presentation at *CFIS Meeting (Paris)* workshop, "*Lensing in CFIS*".
 169. 2017-06-09. Invited Seminar at the University of Cambridge, Institute of Astronomy, "*Beyond The Stellar-Halo Mass Relation: Links Between The Dark Matter Halo And Galaxy Size And The Total Globular Cluster Population*".
 168. 2017-04-29. Invited Public Lecture at the Ontario Science Centre, "*Seeing Dark matter through a Gravitational Lens*".
 167. 2017-03-16. Presentation at *On the Origin and Evolution of Baryonic Galaxy Halos (Galapagos, Ecuador)* conference, "*Beyond the stellar mass-halo mass relation: Halo mass and galaxy sizes, globular clusters and globular cluster system sizes*".
 166. 2017-01-27. Invited Undergrad at the University of Waterloo, Department of Physics and Astronomy, "*Gravitational Mirages (PHYS 10)*".
 165. 2016-12-15. Presentation at *Physics of Galaxy Groups (Paris)* conference, "*Quenching and Morphological Transformations*".
 164. 2016-11-07. Invited Colloquium at the University of North Carolina, Department of Physics and Astronomy (Chapel Hill), "*Seeing Dark Matter through a Gravitational Lens*".
 163. 2016-07-20. Invited Presentation at *Diving Into the Dark: Bridging Cosmological Theory and Observation (Cairns, Australia)* conference, "*Cosmology from the Comparison of Large-Scale Structure and Peculiar Velocities in the Nearby Universe*".
 162. 2016-07-05. Presentation at *Large-Scale Structure and Galaxy Flows (Quy Nhon, Vietnam)* conference, "*Cosmological parameters and cosmography from the comparison of large-scale structures and peculiar velocities in the nearby Universe*".
 161. 2016-06-22. Presentation at *Great Lakes Cosmology and Galaxies (McMaster)* conference, "*Dark matter halos and large-scale filaments from weak gravitational lensing*".
 160. 2016-01-13. Invited Colloquium at McMaster University, Department of Physics and Astronomy (Hamilton, Canada), "*Seeing Dark Matter through a Gravitational Lens*".
 159. 2015-08-12. Invited Presentation at *Cosmic Flows (and other novelties on Large Scales) (PI, Canada)* workshop, "*Reflections on Cosmic Flows and Other Novelties*".

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158. 2015-07-08. Presentation at *Drifting through the Cosmic Web: the Evolution of Galaxies within the Large Scale Structure (Aix-en-Provence, France)* conference, “Cosmological Parameters from the Comparison of Peculiar Velocities with Predictions from the Density Field in the Nearby Universe”.
 157. 2015-06-22. Presentation at *Many Pathways to Galaxy Growth (Prato, Italy)* conference, “Co-evolution of galaxies and haloes in CFHTLenS”.
 156. 2015-02-13. Invited Colloquium at Swinburne University of Technology, Centre for Astrophysics and Supercomputing (Melbourne, Australia), “*The Evolution of Galaxies and their Dark Matter Halos from Weak Gravitational Lensing*”.
 155. 2015-02-10. Presentation at *Massive Galaxies and their Precursors (Sydney, Australia)* conference, “Co-evolution of galaxies and haloes in CFHTLenS”.
 154. 2014-12-12. Invited Seminar at the Institut d’Astrophysique de Paris (France), “Co-evolution of galaxies and haloes in CFHTLenS”.
 153. 2014-11-18. Presentation at *Wide-field InfraRed Surveys: Science and Techniques (Pasadena, USA)* conference, “Canadian Participation in WFIRST”.
 152. 2014-09-22. Invited Seminar at the Canadian Institute for Theoretical Astrophysics (Toronto), “Cosmic flows: testing gravity and the matter power spectrum on very large scales”.
 151. 2014-09-16. Invited Seminar at the Perimeter Institute (Waterloo), “Cosmic flows: testing gravity and the matter power spectrum on very large scales”.
 150. 2014-07-23. Presentation at *Galaxy Masses as Constraints on Formation Models (Oxford)* conference, “Co-evolution of galaxies and their dark matter haloes from CFHTLenS”.
 149. 2014-06-25. Presentation at *The Zeldovich Universe (Tallinn, Estonia)* conference, “Density and Peculiar Velocity Fields in the Nearby Universe”.
 148. 2014-06-12. Invited Review at Canadian Astronomical Society Mid-term review panel (Quebec City), “WFIRST/Dark Energy”.
 147. 2014-06-10. Presentation at *Canadian Astronomical Society Annual Meeting 2014 (Quebec City)* conference, “The Co-Evolution of Galaxies and their Dark Matter Haloes from the CFHTLenS Project”.
 146. 2014-05-15. Presentation at *Multiwavelength-surveys: Galaxy Formation and Evolution from the early universe to today (Dubrovnik, Croatia)* conference, “Co-evolution of galaxies and their dark matter haloes from weak lensing”.
 145. 2014-02-03. Invited Seminar at Queen’s University (Kingston), “Linking the Evolution of Galaxies and their Dark Matter Haloes using Weak Lensing”.
 144. 2013-11-21. Invited Seminar at Waterloo Institute for Complexity and Innovation Data Visualization and Analysis Symposium, “Problems in Cosmology and the Upcoming Data Avalanche”.
 143. 2013-07-24. Presentation at *Ripples in the Cosmos (Durham, UK)* conference, “Testing Large-scale Structure and Gravity with Cosmic Flows”.

142. 2013-06-25. Presentation at *The Physical Link between Galaxies and their Haloes* (Garching, Germany) conference, “*Co-evolution of Galaxies and their Haloes*”.
141. 2013-06-05. Invited Presentation at *Cosmic Flows - Observations and Simulations* (Marseille, France) conference, “*Peculiar Velocities on Large and Intermediate Scales as Tests of Gravity and Large-scale Structure*”.
140. 2013-05-10. Invited Colloquium at Hertzberg Institute for Astrophysics (Victoria, BC), “*The Death of Red Galaxies: Clues from the Fossil Record*”.
139. 2013-05-08. Presentation at *CFHT User’s Meeting* (Campbell River, Canada) workshop, “*Co-evolution of Galaxies and their Haloes*”.
138. 2013-03-29. Presentation at *ngCFHT Workshop* (Hilo, USA) workshop, “*Galaxies and Clusters with ngCFHT*”.