

Douglas W. Rennehan

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EDUCATION

PhD in Physics (Concentration in Astronomy), University of Victoria 2015 - Present
Areas: Active galactic nuclei in cosmological simulations, turbulent mixing.

Bachelor of Science (Physics Honours), University of Victoria 2010 - 2015
Thesis: “Metallicity as a Tracer for Mixing”

PUBLICATIONS

D. Rennehan, A. Babul, C. C. Hayward, C. Bottrell, M. H. Hani, S. C. Chapman. 2019.
[Rapid coeval star formation and assembly of the most massive galaxies in the universe.](#)
arXiv:1907.00977, 14 pages, submitted to MNRAS.

D. Rennehan, A. Babul, P. F. Hopkins, R. Davé, B. Moa. 2019.
[Dynamic Localised Turbulent Diffusion and its Impact on the Galactic Ecosystem.](#)
MNRAS, 483, pp. 3810-3831.

T. B. Miller, S. C. Chapman, M. Aravena, M. L. N. Ashby, C. C. Hayward, J. D. Vieira, A. Weiß, A. Babul, M. Béthermin, C. M. Bradford, M. Brodwin, J. E. Carlstrom, Chian-Chou Chen, D. J. M. Cunningham, C. De Breuck, A. H. Gonzalez, T. R. Greve, J. Harnett, Y. Hezaveh, K. Lacaille, K. C. Litke, J. Ma, M. Malkan, D. P. Marrone, W. Morningstar, E. J. Murphy, D. Narayanan, E. Pass, R. Perry, K. A. Phadke, **D. Rennehan**, K. M. Rotermond, J. Simpson, J. S. Spilker, J. Sreevani, A. A. Stark, M. L. Strandet & A. L. Strom. 2018.
[A massive core for a cluster of galaxies at a redshift of 4.3.](#)
Nature, 556, pp. 469-472.

A. Zehtabi-Oskuie, H. Jiang, B.R. Cyr, **D.W. Rennehan**, A.A. Al-Balushi and R. Gordon, 2013.
[Double nanohole optical trapping: dynamics and protein-antibody co-trapping.](#)
Lab on a Chip, 13(13), pp. 2563-2568.

CONFERENCE PRESENTATIONS

Contributed Talk: Rennehan D., *Rapid coeval star formation and the assembly of the most massive galaxies in the universe.* 2019
Canadian Astronomical Society: “Annual General Meeting” in Montreal, Canada. Oral presentation (PhD work).

Contributed Talk: Rennehan, D., *Turbulent Diffusion and Gas Metallicity.* 2016
Banff International Research Station for Mathematical Innovation and Discovery: “Computing the Universe: At the Intersection of Computer Science and Cosmology” conference in Oaxaca, Mexico. Oral presentation (MSc work).

COMMITTEES

Physics & Astronomy Graduate Student Association, *Academic Representative* 2018 - Present
Organized various workshops at the University of Victoria relating to professional development. Acted as head of the “Software Plumbing” sub-committee, dedicated to increasing the software engineering capabilities of incoming graduate students.

Astronomy Research Centre Sub-Committee, *Graduate Student Representative* 2018 - 2019
Represented graduate students on the ARC (Astronomy Research Centre) Computing Resources Sub-Committee. The committee investigated the future outlook of computing resources for University of Victoria (and associated) researchers.

Physics & Astronomy Chair Search Committee, *Graduate Student Representative* 2018
Represented undergraduate and graduate students on the committee tasked to replace the Chair of the Physics & Astronomy department at the University of Victoria.

CASCA AGM Organization Committee, *Graduate Student Representative* 2017 – 2018
Represented Canadian graduate students in astronomy on the organizational committee for the Canadian Astronomical Society’s annual general meeting (AGM) in 2018. In addition, designed and organized the website for the event.

CASCA Graduate Student Committee, *Vice-chair* 2017 – 2019
Duties include, but not limited to, organizing the astronomy graduate student committee annual general meeting, inviting relevant speakers, and planning workshops.

AWARDS

NSERC CGS-D (Alexander Graham Bell Canada Graduate Scholarship) Competitive national award for Canadian PhD students.	2019 - 2022
The R. M. Pearce Memorial Fellowship Competitive academic institutional scholarship for graduate students.	2018
M.A. & D.E. Breckenridge Graduate Awards Competitive academic institutional scholarship for graduate students.	2017
Melva J. Hanson Graduate Scholarship Competitive academic institutional scholarship for graduate students.	2017
University of Victoria Graduate Fellowship Competitive academic institutional funding award for graduate students.	2015 – 2016
University of Victoria Outstanding Graduate Entrance Award Competitive academic entrance monetary award.	2015
Jamie Cassels Undergraduate Research Award Competitive funding award for undergraduate honours research.	2014
NSERC Undergraduate Student Research Award Competitive institutional funding awards for a semester of undergraduate research, received on 3 separate occasions.	2012, 2014, 2015