

# Publications for Geordie Williamson

## 2018

Lusztig, G., Williamson, G. (2018). Billiards and Tilting Characters for  $SL_3$ . *Symmetry, Integrability and Geometry: Methods and Applications (SIGMA)*, 14, 015 -1-015 - 22. <a href="http://dx.doi.org/10.3842/SIGMA.2018.015">[More Information]</a>

Lusztig, G., Williamson, G. (2018). On the character of certain tilting modules. *Science China Mathematics*, 61(2), 295-298. <a href="http://dx.doi.org/10.1007/s11425-017-9162-9">[More Information]</a>

Williamson, G. (2018). The Hodge theory of the Hecke category. *European Congress of Mathematics (ECM 2016)*, Berlin: European Mathematical Society Publishing House. <a href="http://dx.doi.org/10.4171/176-1/31">[More Information]</a>

Riche, S., Williamson, G. (2018). *Tilting modules and the p-canonical basis*. France: Societe Mathematique de France.

## 2017

Webster, B., Williamson, G. (2017). A geometric construction of colored HOMFLYPT homology. *Geometry and Topology*, 21(5), 2557-2600. <a href="http://dx.doi.org/10.2140/gt.2017.21.2557">[More Information]</a>

Libedinsky, N., Williamson, G. (2017). A non-perverse Soergel bimodule in type A | Un bimodule de Soergel non pervers de type A. *Academie des Sciences. Comptes Rendus. Mathematique*, 355(8), 853-858. <a href="http://dx.doi.org/10.1016/j.crma.2017.07.011">[More Information]</a>

Williamson, G. (2017). Algebraic representations and constructible sheaves. *Japanese Journal of Mathematics*, 12(2), 211-259. <a href="http://dx.doi.org/10.1007/s11537-017-1646-1">[More Information]</a>

Elias, B., Williamson, G. (2017). Diagrammatics for Coxeter groups and their braid groups. *Quantum Topology*, 8(3), 413-457. <a href="http://dx.doi.org/10.4171/QT/94">[More Information]</a>

Elias, B., Snyder, N., Williamson, G. (2017). On cubes of Frobenius extensions. In Henning Krause, Peter Littelmann, Gunter Malle, Karl-Hermann Neeb and Christoph (Eds.), *Representation Theory: Current Trends and Perspectives*, (pp. 171-186). Zurich: European Mathematical Society Publishing House.

Williamson, G. (2017). On torsion in the intersection cohomology of Schubert varieties. *Journal of Algebra*, 475, 207-228. <a href="http://dx.doi.org/10.1016/j.jalgebra.2016.06.006">[More Information]</a>

Williamson, G. (2017). Schubert calculus and torsion explosion. *Journal of the American Mathematical Society*, 30(4), 1023-1046. <a href="http://dx.doi.org/10.1090/jams/868">[More Information]</a>

Williamson, G. (2017). The Hodge theory of the decomposition theorem. *Asterisque*, 390, 335-367.

Jensen, L., Williamson, G. (2017). The p-canonical basis for Hecke algebras (forthcoming). *Contemporary Mathematics*,

683, 333-361.

## 2016

Elias, B., Williamson, G. (2016). Kazhdan-Lusztig conjectures and shadows of Hodge theory. In W Ballmann, C Blohmann, G Faltings, P Teichner, D Zagier (Eds.), *Arbeitsstagung Bonn 2013: In Memory of Friedrich Hirzebruch*, (pp. 105-126). Switzerland: Springer International Publishing Switzerland. <a href="http://dx.doi.org/10.1007/978-3-319-43648-7\_5">[More Information]</a>

Williamson, G. (2016). Local Hodge theory of Soergel bimodules. *Acta Mathematica*, 217(341), 341-404. <a href="http://dx.doi.org/10.1007/s11511-017-0146-8">[More Information]</a>

Juteau, D., Mautner, C., Williamson, G. (2016). Parity sheaves and tilting modules. *Annales Scientifiques de l'Ecole Normale Supérieure*, 49(2), 257-275.

Elias, B., Williamson, G. (2016). Soergel calculus. *Representation Theory*, 20, 295-374. <a href="http://dx.doi.org/10.1090/ert/481">[More Information]</a>

## 2014

Williamson, G. (2014). A reducible characteristic variety in type A. In Monica Nevins, Peter E. Trape (Eds.), *Representations of Reductive Groups In Honor of the 60th Birthday of David A. Vogan, Jr.*, (pp. 517-532). Cham: Birkhauser. <a href="http://dx.doi.org/10.1007/978-3-319-23443-4">[More Information]</a>

Riche, S., Soergel, W., Williamson, G. (2014). Modular Koszul duality. *Compositio Mathematica*, 150(2), 273-332. <a href="http://dx.doi.org/10.1112/S0010437X13007483">[More Information]</a>

Williamson, G. (2014). On an analogue of the James conjecture. *Representation Theory*, 18(1), 15-27.

Fiebig, P., Williamson, G. (2014). Parity sheaves, moment graphs and the p-smooth locus of Schubert varieties. *Annales de l'Institut Fourier*, 64(2), 489-536.

Libedinsky, N., Williamson, G. (2014). Standard objects in 2-braid groups. *Proceedings of the London Mathematical Society*, 109(3), 1264-1280. <a href="http://dx.doi.org/10.1112/plms/pdu022">[More Information]</a>

Elias, B., Williamson, G. (2014). The Hodge theory of Soergel bimodules. *Annals of Mathematics*, 180(2), 1089-1136. <a href="http://dx.doi.org/10.4007/annals.2014.180.3.6">[More Information]</a>

## 2013

Vilonen, K., Williamson, G. (2013). Characteristic cycles and decomposition numbers. *Mathematical Research Letters*, 20(2), 359-366. <a href="http://dx.doi.org/10.4310/MRL.2013.v20.n2.a11">[More Information]</a>

Williamson, G. (2013). Checking Lusztig's conjecture around the Steinberg weight. *Representations of Finite Groups*

Workshop, Oberwolfach: Mathematisches Forschungsinstitut Oberwolfach. <a href="http://dx.doi.org/10.4171/OWR/2012/16">[More Information]</a>

## 2012

Williamson, G., Braden, T. (2012). Modular intersection cohomology complexes on flag varieties. *Mathematische Zeitschrift*, 272(3-4), 697-727. <a href="http://dx.doi.org/10.1007/s00209-011-0955-y">[More Information]</a>

Juteau, D., Mautner, C., Williamson, G. (2012). Perverse Sheaves and Modular representation theory. *Séminaires & Congrès*, , 313-350.

Williamson, G. (2012). Some examples of parity sheaves. *Enveloping Algebras and Geometric Representation Theory*, Oberwolfach: Mathematisches Forschungsinstitut Oberwolfach. <a href="http://dx.doi.org/10.4171/OWR/2012/13">[More Information]</a>

## 2011

Williamson, G. (2011). Singular Soergel bimodules. *International Mathematics Research Notices*, 2011 (20), 4555-4632. <a href="http://dx.doi.org/10.1093/imrn/rnq263">[More Information]</a>

Webster, B., Williamson, G. (2011). The Geometry of Markov Traces. *Duke Mathematical Journal*, 160(2), 401-419. <a href="http://dx.doi.org/10.1215/00127094-1444268">[More Information]</a>

## 2008

Webster, B., Williamson, G. (2008). A geometric model for Hochschild homology of Soergel bimodules. *Geometry and Topology*, 12(2), 1243-1263. <a href="http://dx.doi.org/10.2140/gt.2008.12.1243">[More Information]</a>