

# Piotr Śniady

## List of publications

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### Congress proceedings

Piotr Śniady. Combinatorics of asymptotic representation theory. In *European Congress of Mathematics, Kraków, 2–7 July, 2012*. Editors: Rafał Latała et al., pages 531–545. European Mathematical Society publishing house, 2013.

### Publications in refereed journals

Sho Matsumoto, Piotr Śniady. Symmetric group characters of almost square shape. *Algebr. Comb.* 5, no. 4, pp. 771–784, 2022.

Mikołaj Marciniak, Łukasz Maślanka, Piotr Śniady. Poisson limit of bumping routes in the Robinson–Schensted correspondence. *Probab. Theory Related Fields* 181, no. 4, 1053–1103, 2021.

Sho Matsumoto, Piotr Śniady. Linear versus spin: representation theory of the symmetric groups. *Algebr. Comb.* 3, no. 1, 249–280, 2020.

Sho Matsumoto, Piotr Śniady. Random strict partitions and random shifted tableaux. *Selecta Math. (N.S.)* 26, no. 1, Paper No. 10, 59 pp, 2020.

Maciej Dołęga, Piotr Śniady. Gaussian fluctuations of Jack-deformed random Young diagrams. *Probab. Theory Related Fields* 174, no. 1-2, 133–176, 2019.

Piotr Śniady. Asymptotics of Jack characters. *J. Combin. Theory Ser. A* 166, 91–143, 2019.

Greta Panova, Piotr Śniady. Skew Howe duality and random rectangular Young tableaux. *Algebr. Comb.* 1, no. 1, 81–94, 2018.

Benoît Collins, Jonathan Novak, Piotr Śniady. Semiclassical asymptotics of  $GL_N(\mathbb{C})$  tensor products and quantum random matrices. *Selecta Math. (N.S.)* 24, no. 3, 2571–2623, 2018.

Serban T. Belinschi, Piotr Śniady, Roland Speicher. Eigenvalues of non-Hermitian random matrices and Brown measure of non-normal operators: Hermitian reduction and linearization method. *Linear Algebra Appl.* 537, 48–83, 2018.

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Dan Romik and Piotr Śniady. Limit shapes of bumping routes in the Robinson-Schensted correspondence. *Random Structures & Algorithms* 48, no. 1, 171–182, 2016

Dan Romik and Piotr Śniady. Jeu de taquin dynamics on infinite Young tableaux and second class particles. *Ann. Probab.* 43, no. 2, 682–737, 2015.

Piotr Śniady. Robinson–Schensted–Knuth algorithm, jeu de taquin and Kerov–Vershik measures on infinite tableaux. *SIAM J. Discrete Math.* 28, no. 2, 598–630, 2014.

Benoît Collins, Hun Hee Lee, Piotr Śniady. Dimensions of components of tensor products of the linear groups representations with applications to Beurling-Fourier algebras. *Studia Math.* 220, no. 3, 221–241, 2014.

Maciej Dołęga, Valentin Féray, and Piotr Śniady. Jack polynomials and orientability generating series of maps. *Séminaire Lotharingien de Combinatoire*, B70j, 50 pp., 2013.

Motohisa Fukuda and Piotr Śniady. Partial transpose of random quantum states: Exact formulas and meanders. *Journal of Mathematical Physics*, 54(4):042202, 2013.

Maciej Dołęga and Piotr Śniady. Asymptotics of characters of symmetric groups: structure of Kerov character polynomials. *J. Combin. Theory Ser. A*, 119(6):1174–1193, 2012.

Valentin Féray and Piotr Śniady. Asymptotics of characters of symmetric groups related to Stanley character formula. *Ann. of Math. (2)*, 173(2):887–906, 2011.

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James A. Mingo, Piotr Śniady, and Roland Speicher. Second order freeness and fluctuations of random matrices. II. Unitary random matrices. *Adv. Math.*, 209(1):212–240, 2007.

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Piotr Śniady. Multinomial identities arising from free probability theory. *J. Combin. Theory Ser. A*, 101(1):1–19, 2003.

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Piotr Śniady. Gaussian random matrix models for  $q$ -deformed Gaussian variables. *Comm. Math. Phys.*, 216(3):515–537, 2001.

Piotr Śniady. On  $q$ -deformed quantum stochastic calculus. *Probab. Math. Statist.*, 21(1, Acta Univ. Wratislav. No. 2298):231–251, 2001.

Piotr Śniady and Roland Speicher. Continuous family of invariant subspaces for  $R$ -diagonal operators. *Invent. Math.*, 146(2):329–363, 2001.

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Piotr Śniady and Marcin Zygmont. The  $U(1)$ -invariant field theories with normal field operators. *J. Math. Phys.*, 41(7):4604–4606, 2000.

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Łukasz Maślanka, Piotr Śniady, Limit shapes of evacuation and jeu de taquin paths in random square tableaux. In *32nd International Conference on Formal Power Series and Algebraic Combinatorics (FPSAC 2020)*, Sém. Lothar. Combin. 84B, Art. 8, 12 pp., 2020.

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Maciej Dołęga, Valentin Féray, and Piotr Śniady. Characters of symmetric groups in terms of free cumulants and Frobenius coordinates. In *21st International Conference on Formal Power Series and Algebraic Combinatorics (FPSAC 2009)*, Discrete Math. Theor. Comput. Sci. Proc., AK, pages 337–348. Assoc. Discrete Math. Theor. Comput. Sci., Nancy, 2009.

Cristopher Moore, Alexander Russell, and Piotr Śniady. On the impossibility of a quantum sieve algorithm for graph isomorphism. In *STOC'07—Proceedings of the 39th Annual ACM Symposium on Theory of Computing*, pages 536–545. ACM, New York, 2007.

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of *Banach Center Publ.*, pages 409–414. Polish Acad. Sci. Inst. Math., Warsaw, 2006.

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Piotr Śniady. Stanley character polynomials. Chapter in a book *The Mathematical Legacy of Richard P. Stanley*, American Mathematical Society, 2017

Piotr Śniady. Between excess and deficiency: critical percolation. Chapter in a book *Excess and lack*, The Academy of Young Scholars and Artists, Wrocław, 2013

Jonathan Novak and Piotr Śniady. What is . . . a free cumulant? *Notices Amer. Math. Soc.*, 58(2):300–301, 2011.

Piotr Śniady. Asymptotic representation theory of symmetric groups (in Polish). *Wiad. Mat.*, 45(2):171–193, 2009.

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## Publications on exotic topics

Rafał Idzikowski, Małgorzata Mazij, Paweł Śniady, and Piotr Śniady. Vibrations of String due to a Uniform Partially Distributed Moving Load: Closed Solutions. *Mathematical Problems in Engineering*, Volume 2013, Article ID 163970

Karska, A., Herczeg, G. J., van Dishoeck, E. F., Wampfler, S. F., Kristensen, L. E., Goicoechea, J. R., Visser, R., Nisini, B., San José-García, I., Bruderer, S., Śniady, P., Doty, S., Fedele, D., Yildiz, U. A., Benz, A. O., Bergin, E., Caselli, P., Herpin, F., Hogerheijde, M. R., Johnstone, D., Jørgensen, J. K., Liseau, R., Tafalla, M., van der Tak, F., and Wyrowski, F. Water in star-forming regions with Herschel (WISH). III. Far-infrared cooling lines in low-mass young stellar objects. *Astronomy & Astrophysics*, 552:A141, 2013.

Jarosław Rusin, Paweł Śniady, and Piotr Śniady. Vibrations of double-string complex system under moving forces. closed solutions. *Journal of Sound and Vibration*, 330(3):404–415, 2011.