1 Хорошие базисы

Хороший базис	Комбинаторика	Полиэдральная ком-	Положительность и
		бинаторика	потенциалы
Канонический базис	выпуклые порядки	структура кристал-	дуальный геометри-
Люстига в $U_q(\mathfrak{n}^-)$ [21]	на положительных	ла $B(\infty)$ на положи-	ческий кристалл на
	корнях, действие	тельном ортанте \mathbb{Z}^m	$B \cap B_{-}w_{0}B_{-}$ дуаль-
	группы кос на $U_q(\mathfrak{g})$,	[21, 10]	ная функция деко-
	кусочно-линейная		рации Беренштейна-
	комбинаторика		Каждана Ψ_{BK} [17,
	[21, 26]		10]
Дуальный канониче-	редуцированные	структура кристалла	геометрический кри-
ский базис Кашива-	разложения $w_0 \in W$,	$B(\infty)$ на струнных	сталл на $B \cap Bw_0B$,
ры в $\mathbb{C}[N]$ [15]	кристаллический	конусах [3, 4, 5, 14,	Berenstein-Kazhdan
	граф Кашивары,	[15, 23]	potential Φ_{BK}
	кусочно-линейная		[2, 9, 10]
	комбинаторика		
	струн	77	
Тета базис Гросса-	Структура кла-	Конус тропических	структура кла-
Хакинга-Кила-	стерной алгебры на	точек, параметри-	стерных \mathcal{A} , \mathcal{X} -
Концевича в	$\mathcal{O}(G/N)$, мутации	зующий тета-базис	многообразий G/N ,
$H^0(G/N, \mathcal{O}(G/N))$	кластерных зерен	[6, 13, 10, 22]	потенциал Ландау-
[13]	[1, 6], максимальные		Гинзбурга W_{GHKK}
	зеленые последова-		[13, 10]
	тельности, гипотеза		
	Фока-Гончарова		
	[11, 13, 16]		

Список литературы

- [1] Arkady Berenstein, Sergey Fomin, and Andrei Zelevinsky. Cluster algebras. III. Upper bounds and double Bruhat cells. *Duke Math. J.* 126.1 (2005), 1–52.
- [2] Arkady Berenstein and David Kazhdan. Lecture notes on geometric crystals and their combinatorial analogues. In: Combinatorial aspect of integrable systems, *MSJ Memoirs* 17, Mathematical Society of Japan, 2017.
- [3] Arkady Berenstein and Andrei Zelevinsky. Tensor product multiplicities, canonical bases and totally positive varieties. *Invent. Math.* 143.1 (2001), 77–128.
- [4] Lara Bossinger and Ghislain Fourier. String cone and superpotential combinatorics for flag and Schubert varieties in type A. J. Comb. Theory Ser. A 167 (2019), 213–256.

- [5] Vladimir I. Danilov, Alexander V. Karzanov, and Gleb A. Koshevoy. Plücker environments, wiring and tiling diagrams, and weakly separated set-systems. *Adv. Math.* 224.1 (2010), 1–44.
- [6] V. V. Fock, A. B. Goncharov. Cluster ensembles, quantization and the dilogarithm. *Annales Sci. de. l'Ecole Norm. Sup.* 42 (2009), 865–930.
- [7] Sergey Fomin, and Andrei Zelevinsky. Cluster algebras I: Foundations, *J. Amer. Math. Soc.* 15 (2002), 497–529.
- [8] Sergey Fomin, and Andrei Zelevinsky. Cluster algebras. IV. Coefficients. *Compos. Math.* 143 (2007), 112–164.
- [9] Volker Genz. Crystal combinatorics and mirror symmetry for cluster varieties. Ph. D. thesis, University of Cologne, 2017.
- [10] Volker Genz, Gleb Koshevoy and Bea Schumann, Polyhedral parametrizations of canonical bases & cluster duality, Advances in Mathematicsthis link is disabled, 2020, 369, 107178
- [11] Volker Genz and Gleb Koshevoy, Maximal Green Sequences for Triangle Products, Proceedings FPSAC 2021, https://www.mat.univie.ac.at/slc/wpapers/FPSAC2021/83.html
- [12] Oleg Gleizer and Alexander Postnikov. Littlewood-Richardson coefficients via Yang-Baxter equation. *Internat. Math. Res. Notices* 14 (2000), 741–774.
- [13] Mark Gross, Paul Hacking, Sean Keel, and Maxim Kontsevich. Canonical bases for cluster algebras. J. Amer. Math. Soc. 31 (2018), 497–608.
- [14] Masaki Kashiwara. The crystal base and Littelmann's refined Demazure character formula. *Duke Math. J.*, 71.3 (1993), 839–858.
- [15] Masaki Kashiwara. On crystal bases. Representations of groups (Banff, AB, 1994). In: CMS Conf. Proc. 16, pages 155–197, Amer. Math. Soc., Providence, 1995.
- [16] Bernhard Keller, A survey on maximal green sequences, https://webusers.imj-prg.fr/bernhard.keller/publ/KellerSurveyOnMaximalGreenSequences.pdf
- [17] Gleb Koshevoy, Cluster Decorated Geometric Crystals, Generalized Geometric RSK-Correspondences, and Donaldson-Thomas Transformations, 2017 MATRIX Annals, https://link.springer.com/chapter/10.1007/978-3-030-04161-8 25
- [18] Bernard Leclerc and Andrei Zelevinsky. Quasicommuting families of quantum Plücker coordinates. In: *Amer. Math. Soc. Transl.* 181.2, Kirillov's Seminar on Representation Theory, pages 85–108, Amer. Math. Soc.,1998.
- [19] George Lusztig. Canonical bases arising from quantized enveloping algebras. *J. Amer. Math. Soc.* 3.2 (1990), 447–498.

- [20] George Lusztig. Finite-dimensional Hopf algebras arising from quantized universal enveloping algebra. J. Amer. Math. Soc. 3.1 (1990), 257–296.
- [21] George Lusztig. Introduction to quantum groups. Birkhäuser, 1993.
- [22] Timothy Magee. GHK mirror symmetry, the Knutson-Tao hive cone, and Littlewood-Richardson coefficients. Ph. D. thesis, The University of Texas at Austin, 2017.
- [23] Toshiki Nakashima and Andrei Zelevinsky. Polyhedral realizations of crystal bases for quantized Kac-Moody algebras. Adv. Math. 131.1 (1997), 253–278.
- [24] Markus Reineke. On the coloured graph structure of Lusztig's canonical basis. *Math. Ann.* 307.4 (1997), 705–723.
- [25] Yoshihisa Saito. Mirković-Vilonen polytopes and a quiver construction of crystal basis in type A. Int. Math. Res. Not. 17 (2012), 3877–3928.
- [26] Ben Salisbury, Adam Schultze and Peter Tingley. Combinatorial descriptions of the crystal structure on certain PBW bases. *Transformation Groups* 23 (2017), 501–525.
- [27] Bea Schumann. Homological Description of Crystal Structures on Lusztig's Quiver Varieties. *International Mathematics Research Notices* 12 (2017), 3684–3725.
- [28] Shmuel Zelikson. On crystal operators in Lusztig's parametrizations and string cone defining inequalities. *Glasg. Math. J.* 55.1 (2013), 177–200.