

## List of Publications

Francesco Brenti

1. Sulle S-partizioni di Sylow in alcune classi di gruppi finiti, *Boll. U.M.I. Ser.6*, **3-B** (1984), 665-685.
2. *Unimodal, log-concave and Pólya frequency sequences in Combinatorics*, viii + 106 pp., Memoirs Amer. Math. Soc., no.413, 1989.
3. Unimodal polynomials arising from symmetric functions, *Proc. Amer. Math. Soc.*, **108** (1990), 1133-1141.
4. Log-concavity and combinatorial properties of Fibonacci Lattices, *Europ. J. Combinatorics*, **12** (1991), 459-476 .
5. Expansions of chromatic polynomials and log-concavity, *Trans. Amer. Math. Soc.*, **332** (1992), 729-756 .
6. Determinants of super-Schur functions, lattice paths, and dotted plane partitions, *Advances in Math.*, **98** (1993), 27-64.
7. Permutation enumeration, symmetric functions, and unimodality, *Pacific J. Math.*, **157** (1993), 1-28.
8. with G. F. Royle and D. G. Wagner, Location of zeros of chromatic and related polynomials of graphs, *Canadian J. Math.*, **46** (1994), 55-80.
9. Combinatorial properties of the Kazhdan-Lusztig  $R$ -polynomials for  $S_n$ , *Advances in Math.*, **126** (1997), 21-51.
10.  $q$ -Eulerian polynomials arising from Coxeter groups, *Europ. J. Combinatorics*, **15** (1994), 417-441.

11. Combinatorics and total positivity, *J. Comb. Theory, Ser. A*, **71** (1995), 175-218.
12. A combinatorial formula for Kazhdan-Lusztig polynomials, *Invent. Math.*, **118** (1994), 371-394.
13. Log-concave and unimodal sequences in Algebra, Combinatorics, and Geometry: an update, *Contemporary Math.*, **178** (1994), 71-89.
14. Upper and lower bounds for Kazhdan-Lusztig polynomials, *Europ. J. Combinatorics*, **19** (1998), 283-297.
15. Kazhdan-Lusztig and  $R$ -polynomials from a combinatorial point of view, *Discrete Math.*, **193** (1998), 93-116.  
(*Discrete Mathematics Editors' Choice* for 1998)
16. The applications of total positivity to combinatorics, and conversely, in *Total Positivity and its Applications*, (M. Gasca, C. A. Micchelli, eds.), Kluwer Academic Pub., Dordrecht, The Netherlands, 1996, 451-473.
17. Combinatorial expansions of Kazhdan-Lusztig polynomials, *J. London Math. Soc.*, **55** (1997), 448-472.
18. Hilbert polynomials in Combinatorics, *J. Algebraic Combinatorics*, **7** (1998), 127-156.
19. with A. Björner, Affine permutations of type A, *Elec. J. Combinatorics*, **3** (1996), #R18 (35 pp).
20. with A. Björner, An improved tableau criterion for Bruhat order, *Elec. J. Combinatorics*, **3** (1996), #R22 (5 pp).
21. Lattice paths and Kazhdan-Lusztig polynomials, *J. Amer. Math. Soc.*, **11** (1998), 229-259.
22. Twisted incidence algebras and Kazhdan-Lusztig-Stanley functions, *Advances in Math.*, **148** (1999), 44-74.

23. with R. Simion, Explicit formulae for some Kazhdan-Lusztig polynomials, *J. Algebraic Combinatorics*, **11** (2000), 187-196.
24. A class of  $q$ -symmetric functions arising from plethysm, *J. Comb. Theory, Ser. A*, **91** (2000), 137-170.
25. with S. Fomin and A. Postnikov, Mixed Bruhat operators and Yang-Baxter equations for Weyl groups, *Int. Math. Research Notices*, (1999), No.8, 419-441.
26. Approximation results for Kazhdan-Lusztig polynomials, *Adv. Studies Pure Math.*, **28** (2000), 57-81.
27. Kazhdan-Lusztig and  $R$ -polynomials, Young's lattice, and Dyck partitions, *Pacific J. Math.*, **207** (2002), 257-286.
28. with R. Adin and Y. Roichman, Descent numbers and major indices for the hyperoctahedral group, *Advances in Applied Math.*, **27** (2001), 210-224.
29. Enumerative and combinatorial properties of Dyck partitions, *J. Comb. Theory, Ser. A*, **99** (2002), 51-74.
30.  $P$ -kernels, IC bases and Kazhdan-Lusztig polynomials, *J. of Algebra*, **259** (2003), 613-627.
31. with R. Adin and Y. Roichman, Descent representations and multivariate statistics, *Trans. Amer. Math. Soc.*, **357** (2005), 3051-3082.
32. The intersection cohomology of Schubert varieties is a combinatorial invariant, *Europ. J. Combinatorics*, **25** (2004), 1151-1167.
33. Kazhdan-Lusztig polynomials: History, Problems, and Combinatorial Invariance, *Sémin. Lothar. Combinatoire*, **49** (2002), #b (30 pp).
34. with F. Caselli and M. Marietti, Special matchings and Kazhdan-Lusztig polynomials, *Advances in Math.*, **202** (2006), 555-601.

35. with A. Björner, *Combinatorics of Coxeter Groups*, Graduate Texts in Mathematics, **231**, Springer-Verlag, New York, 2005.
36. with R. Adin and Y. Roichman, Equi-distribution over descent classes of the hyperoctahedral group, *J. Comb. Theory, Ser. A*, **113** (2006), 917-933.
37. with R. Adin and Y. Roichman, A unified construction of Coxeter group representations, *Advances in Applied Math.*, **37** (2006), 31-67.
38. with F. Incitti, Lattice paths, lexicographic correspondence and Kazhdan-Lusztig polynomials, *J. Algebra*, **303** (2006), 742-762.
39. with F. Caselli and M. Marietti, Special matchings and permutations in Bruhat orders, *Advances in Applied Math.*, **38** (2007), 210-226.
40. with R. Adin and Y. Roichman, A construction of Coxeter group representations (II), *J. Algebra*, **306** (2006), 208-226.
41. with F. Caselli and M. Marietti, Diamonds and Hecke algebra representations, *Int. Math. Research Notices*, **2006**, Art. ID 29407, 34 pp.
42. Parabolic Kazhdan-Lusztig polynomials for Hermitian symmetric pairs, *Trans. Amer. Math. Soc.*, **361** (2009), 1703-1729.
43. with F. Caselli and M. Marietti, Special matchings and Coxeter groups, *Arch. Mathematik*, **89** (2007), 298-310.
44. Parabolic Kazhdan-Lusztig  $R$ -polynomials for Hermitian symmetric pairs, *J. Algebra*, **318** (2007), 412-429.
45. with V. Welker,  $f$ -vectors of barycentric subdivisions, *Math. Zeit.*, **259** (2008), 849-865.
46. with L. Billera, Quasisymmetric functions and Kazhdan-Lusztig polynomials, *Israel J. Math.*, **184** (2011), 317-348.

47. with V. Reiner and Y. Roichman, Alternating subgroups of Coxeter groups, *J. Comb. Theory, Ser. A*, **115** (2008), 845-877.
48. with V. Welker, The Veronese construction for formal power series and graded algebras, *Advances in Applied Math.*, **42** (2009), 545-556.
49. Enumerative properties of shifted Dyck partitions, *J. Comb. Theory, Ser. A*, **117** (2010), 223-235.
50. with F. Incitti and M. Marietti, Kazhdan-Lusztig polynomials, tight quotients and Dyck superpartitions, *Advances in Applied Math.*, **47** (2011), 589-614.
51. Parabolic Kazhdan-Lusztig  $R$ -polynomials for tight quotients of the symmetric groups, *J. Algebra*, **347** (2011), 247-261.
52. with R. Adin and Y. Roichman, Flag weak order on wreath products, *Sémin. Lothar. Combinatoire*, **67** (2012), #e (20 pp).
53. with P. Mongelli and P. Sentinelli, Parabolic Kazhdan-Lusztig  $R$ -polynomials for quasi-minuscule quotients, *J. Algebra*, **452** (2016), 574-595.
54. with P. Mongelli and P. Sentinelli, Parabolic Kazhdan-Lusztig polynomials for quasi-minuscule quotients, *Advances in Applied Math.*, **78** (2016), 27-55.
55. Stanley's work on unimodality, in *The Mathematical Legacy of Richard P. Stanley*, (P. Hersh, T. Lam, P. Pylyavskyy and V. Reiner, eds.), Amer. Math. Soc. , 2016, 119-130.
56. with F. Caselli, Peak algebras, paths in the Bruhat graph and Kazhdan-Lusztig polynomials, *Advances in Math.*, **304** (2017), 539-582.
57. with A. Carnevale, Proof of a conjecture of Klopsch-Voll on Weyl groups of type  $A$ , *Trans. Amer. Math. Soc.*, **369** (2017), 7531-7547.
58. A twisted duality for parabolic Kazhdan-Lusztig  $R$ -polynomials, *J. Algebra*, **477** (2017), 472-482.

59. with A. Carnevale, Odd length for even hyperoctahedral groups and signed generating functions, *Discrete Math.*, **340** (2017), 2822-2833.
60. with M. Marietti, Fixed points and adjacent ascents for classical complex reflection groups, *Advances in Applied Math.*, **101** (2018), 168-183.
61. with A. Carnevale, Odd length in Weyl groups, *Algebraic Combin.*, **2** (2019), 1125-1147.
62. with R. Conti, Permutations, tensor products, and Cuntz algebra automorphisms, *Advances in Math.*, **381** (2021), 107590.
63. with P. Sentinelli, Odd and even major indices and one-dimensional characters for classical Weyl groups, *Annals Combin.*, **24** (2020), 809-835.
64. with A. Carnevale, Odd length: odd diagrams and descent classes, *Discrete Math.*, **344** (2021), no. 5, 112308, 17 pp.