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Notes on Schubert, Grothendieck and key polynomials. (English) \[Zbl 1334.05176\]

Summary: We introduce common generalization of (double) Schubert, Grothendieck, Demazure, dual and stable Grothendieck polynomials, and Di Francesco-Zinn-Justin polynomials. Our approach is based on the study of algebraic and combinatorial properties of the reduced rectangular plactic algebra and associated Cauchy kernels.

MSC:

05E05 Symmetric functions and generalizations
05E10 Combinatorial aspects of representation theory
05A19 Combinatorial identities, bijective combinatorics

Keywords:

plactic monoid and reduced plactic algebras; nilcoxeter and idcoxeter algebras; Schubert, β-Grothendieck, key and double key-Grothendieck, and di Francesco-Zinn-Justin polynomials; Cauchy’s type kernels and symmetric, totally symmetric plane partitions, and alternating sign matrices; noncrossing Dyck paths and rectangular Schubert polynomials; double affine nilcoxeter algebras

Software:

OEIS

Full Text: DOI arXiv

References:


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