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**Dmitry N Kozlov\*** ([kozlov@math.kth.se](mailto:kozlov@math.kth.se)). *Discrete models for algebraic invariants of spaces of polynomials.*

The space of all hyperbolic polynomials is naturally stratified by the multiplicities of roots. These strata are indexed by number partitions, and in this talk I will concentrate on the problem of computing their homotopy type.

After remarking on some general facts (such as stabilization theorems), I will present explicit combinatorial answers for various classes of strata. Then, I will outline the connection between  $3,1,\dots,1,1$  strata and complexes of directed forests.

Finally, I will look at the notion of complexity of resonances, in the context of the resonance category. The latter is a canonical object encoding the combinatorics of the multiplicity stratifications of symmetric smash products. (Received August 08, 2002)