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Representation stability for symplectomorphism groups of blow-ups of monotone rational surfaces

Let M be a monotone rational surface and $\tilde{M}_n$ its symplectic blow-up at n disjoint balls of equal small capacity. For $M = \mathbb{CP}^2$, the monotone $S^2 \times S^2$, and the monotone del Pezzo surfaces of degrees 4 to 8, I will explain why the rational cohomology of $B\mathrm{Symp}_h(\tilde{M}_n)$ forms, in each degree, a finitely generated FI-module, and is therefore uniformly representation stable as n varies. Taking S_n-invariants yields rational cohomological stability for the symplectomorphism groups permuting the exceptional divisors. The key geometric input is that the homotopy type of the space of symplectic embeddings of $n$disjoint balls is constant on an open polytope of small capacities. To our knowledge, these are the first representation-stability results for symplectomorphism groups. Joint work with Silvia Anjos.