VIRTUAL STRUCTURE ON HILBERT SCHEMES OF AFFINE 4-SPACE

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We consider the generating series of certain K-theoretic invariants of Hilbert schemes of points on affine 4-space. Using torus localization, it reduces to an interesting weighted count of solid partitions for which Nekrasov provided a (conjectural) closed formula. We prove this formula by showing that the K-theoretic insertions lift to spin modules and give rise to a factorizable sequence of sheaves in the sense of Okounkov. Joint work with J.V. Rennemo.