

Intersection numbers with Pixton's class and the noncommutative KdV hierarchy

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Abstract. The Pixton class is a nonhomogeneous cohomology class on the moduli space of stable curves $\overline{\mathcal{M}}_{g,n}$, with nontrivial terms in degree $0, 2, 4, \dots, 2g$, whose top degree part coincides with the double ramification cycle. In this paper, we prove our conjecture from a previous work, claiming that the generating series of intersection numbers of the Pixton class with monomials in the psi-classes gives a solution to the noncommutative KdV hierarchy.

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