

Title: On semisimplicity of quantum cohomology of \mathbb{P}^1 -orbifolds

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Abstract: A conjecture of Dubrovin states that a smooth projective variety has semisimple quantum cohomology if and only if its bounded derived category of coherent sheaves admits a full exceptional collection. It is natural to consider this conjecture for orbifolds. We will verify Dubrovin's conjecture for orbi-curves. The key observation is that the big quantum cohomology of a \mathbb{P}^1 -orbifold \mathcal{C} is generically semisimple. We also show that the small quantum cohomology of \mathcal{C} is generically semisimple iff \mathcal{C} is Fano, i.e. it has positive orbifold Euler characteristic.