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Title: Blow-ups and the quantum spectrum of surfaces

Abstract: The cup product of ordinary cohomology describes how submanifolds of a manifold intersect each other. Gromov-Witten invariants give rise to quantum product and quantum cohomology, which describe how subspaces intersect in a "fuzzy", "quantum" way. Dubrovin observed that quantum cohomology can be used to define a flat connection on a certain vector bundle called the quantum connection. We verify a conjecture of Kontsevich on the behaviour of the spectrum of the quantum connection under blow-ups for smooth projective surfaces. Joint work with Szilárd Szabó.