Search the quantum symmetry for topology

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Abstract. There are many examples where the mathematics from the same root seems to be far apart from each other. We will illustrate such a discontinuous phenomenon using three examples: flop, McKay correspondence and singularities Calabi-Yau correspondence. On the other hand, there is a general principle from physics that the quantum world should be more uniform than classical world. It suggests that there may be a "quantum symmetry" for these disconnected mathematics. In the talk, we will demonstrate such a "quantum symmetry" for quantum cohomology.