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Jonathan Wise* (jonathan@math.brown.edu), Brown University, Division of Pure Mathematics, 151 Thayer St., Box 1917, Providence, RI 02912-1917. *The small quantum Chow ring of $[\mathrm{Sym}^2\mathbf{P}^2]$* . Preliminary report.

The crepant resolution conjecture relates the quantum cohomology ring of an orbifold to the quantum cohomology ring of a crepant resolution of its coarse moduli space. I will present the small quantum cohomology ring of $[\mathrm{Sym}^2\mathbf{P}^2]$, the stack symmetric square of \mathbf{P}^2 . Together with Graber's computation of the Gromov-Witten invariants of $H(2, \mathbf{P}^2)$, this will allow us to check the crepant resolution conjecture for the small quantum cohomology ring of $[\mathrm{Sym}^2\mathbf{P}^2]$. (Received September 01, 2006)