1077-18-212   **Radmila Sazdanovic*** (`radmilas@math.upenn.edu`), University of Pennsylvania, DRL 209 33rd
                   South street, Philadelphia, PA 19104-6395, and **Mikhail Khovanov**. *Categorification of the*
                   polynomial ring.

We introduce a categorification of the one-variable polynomial ring $Z[x]$, based on the geometrically defined graded algebra and show how to lift various operations on polynomials to the categorified setting. This construction generalizes to categorification of various orthogonal polynomials, including Chebyshev polynomials and the Hermite polynomials. (Received August 12, 2011)