1125-18-1525   **Radmila Sazdanovic*** (`rsazdan@ncsu.edu`), Department of Mathematics NCSU, Box 8205, Raleigh, NC 27695, and **Mikhail Khovanov**. *Diagrammatic categorification of the polynomial ring Z[x]*. Preliminary report.

We develop a diagrammatic categorification of the polynomial ring Z[x] that leads to categorification of some families of orthogonal polynomials. Our categorifications satisfy a version of the Bernstein-Gelfand-Gelfand reciprocity property with the indecomposable modules corresponding to the monomials and standard modules to the orthogonal polynomials in the Grothendieck ring. (Received September 17, 2016)