A Khovanov homology construction for the chromatic polynomial

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We will recall the construction of the Khovanov homology for links in S^3. We will argue that the idea of Khovanov homology can be transferred to other polynomial invariants arising from a state-sum formulas. A nice example is the chromatic polynomial in graph theory: we will construct a double-graded homology theory for graphs, such that the Poincaré polynomial of the homology yields the chromatic polynomial. Some properties of this homology will be analysed. A very similar construction can also be used for the Tutte polynomial.