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Christopher Cornwell* (cornwell@math.msu.edu). *Polynomial invariants and Legendrian links in lens spaces.*

We consider Legendrian links in a lens space with a universally tight contact structure, and the projections of such links to a torus that correspond to toroidal grid diagrams. There is a complexity on such diagrams that we use to find HOMFLY-PT and Kauffman polynomial invariants for links in lens spaces.

This complexity on grid diagrams can also be used to show that a degree of each polynomial fits into a Bennequin-type inequality. As a consequence of the inequality, Legendrian knots with grid number one have maximum Thurston-Bennequin number. (Received January 17, 2011)