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52245. *Bulky Knots*.

For classical knots and links in R^3 a general planar projection has only crossing points. However a knotted or linked surface $M^2 \subseteq R^4$ may have triple points when projected to R^3 . Links such that all projections must have triple points are called bulky links. In the orientable case, a bulky link is a non-psuedo-ribbon link. For surface links M^2 with three or more components we define a new invariant that can detect bulky links. Proof is by showing invariance under higher dimensional knot moves.

For higher dimensional links $M^n \subseteq R^{n+2}$ we extend definition of bulky links and discuss an extension of our invariant. (Received August 26, 2014)