1117-05-470 **Csaba Biro***, Department of Mathematics, University of Louisville, Louisville, KY 40292, and **Stephen J Young**. *Subdivisions of cover graphs of posets.* Preliminary report.

The dimension of a poset is the least integer d such that the poset can be embedded into $\mathbb{R}^d$. In the recent years a number of results were published along the idea, that if a poset has a simple enough cover graph, then its dimension can not be too large. On the other hand, in 1988, Spinrad proved that the dimension of a poset can be increased arbitrarily by subdividing edges in its cover graph. However, if the cover graph has no K_4 minor, this is no longer true. In this paper we find an upper bound for the dimension of a subdivison of a poset with K_4-free cover graphs in terms of the dimension of the poset. (Received January 19, 2016)