1035-54-187 Lucas Bennett* (labennet@math.uiowa.edu). Upper Bound of Edge Number for Links. Preliminary report.

Negami showed that for a link, L, that does not have the Hopf link as a connected sum factor nor a splittable trivial component, $e(L) \leq 2c(L)$, where e(L) is the minimum number of straight edges needed to construct L and c(L) is the minimal number of crossings over all projections of the link. I will use the arc index $(\alpha(L))$ of a link to improve this bound. Cromwell introduced the main ideas of the arc index and made a conjecture that Bae and Park later proved which is: For a prime link L, $\alpha(L) \leq c(L) + 2$. I will also use this theorem to give an upper bound for $e_{=}(L)$, the fixed edge length number for a link. (Received August 14, 2007)