1117-52-448   **Carlos M. Nicolas*** (`cnicolas@ferrum.edu`). *A super-linear lower bound for the number of empty convex pentagons in planar point sets.*

Let S be a set of points in general position in the plane. A subset P of S is called an empty convex pentagon of S if $|P| = 5$, P is in convex position and the convex hull of P does not contain any other points of S. Let $G(S)$ be the number of empty convex pentagons of S and $g(n)$ the minimum value of $G(S)$ over all sets S with n points in general position. In this talk I show that $n/g(n)$ goes to zero as n goes to infinity. This improves the current linear lower bound on $g(n)$. (Received January 18, 2016)