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Wenliang Zhang* (w1zhang@math.umn.edu), 127 Vincent Hall, 206 Church Street, Minneapolis, MN 55414. *On the highest Lyubeznik number of a local ring.*

Let A be a d -dimensional local ring containing a field. We will prove that the highest Lyubeznik number $\lambda_{d,d}(A)$ (defined in [?]) is equal to the number of connected components of the Hochster-Huneke graph (defined in [?]) associated to B , where $B = \hat{A}^{sh}$ is the completion of the strict Henselization of the completion of A . This was proven by Lyubeznik in characteristic $p > 0$. Our statement and proof are characteristic-free. (Received August 03, 2006)