1126-42-266 **John Haas**, **Nathaniel Hammen*** (nhammen@gmail.com) and **Dustin Mixon**. *Achieving equality with the second degree Levenstein bound.* Preliminary report.

Optimally low coherence frames lead to good compressed sensing matrices. Nearly all currently known optimal packings satisfy equality with either the Welch or orthoplex bounds. For a frame in $d$ dimensional space, this requires a maximum frame size of $d(d+1)$ vectors. We study packings that achieve equality with the Levenstein or Delsarte bounds as a way to achieve optimality beyond this ceiling. (Received January 16, 2017)