

Russel Avdek (Uppsala Universitet): Holomorphic curve invariants of convex hypersurfaces.

Friday, May 21, 2021 3:00 PM (50 minutes)

Let S be a convex hypersurface with neighborhood $N(S)$ inside of some contact manifold. When $\dim(S)=2$ the contact topology of $N(S)$ is governed by simple closed curves on S . However, few tools are currently available to study $N(S)$ when $\dim(S)>2$. We provide such a tool which is applicable in any dimension by computing the sutured contact homology of $N(S)$ in terms of linearized invariants of the positive and negative regions of S . The proof combines Morse-Bott, obstruction bundle gluing, and virtual perturbation techniques.